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GUY'S HOSPITAL GAZETTE

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Editors *T. C. Davis*
B. H. Hicks

Sports Correspondent *E. Tiller*

Guy's Hospital, London

PASSIM

We offer our warmest congratulations to Dr. Boland who received a Knighthood in the New Year's Honours List, an honour which will be particularly welcome and celebrated at Guy's. We also offer our congratulations to Dr. Mary Sheridan, who received an O.B.E., and to Mr. Kingston who received an M.B.E., in the New Year's Honours List.

Pause to Ponder

Christmas and the New Year celebrations have passed and we begin to re-evaluate ourselves and our lives. In recent years it has not been very often that people have looked forward into the New Year with so much hope and optimism, for 1963 has been triumphantly destructive in its wrecking of reputations, governments, philosophies and people. The bright star of progress now shines a little more clearly and steadily than it has done for some months.

Christmas celebrations at Guy's were as grandly lavish and well-supported as ever, the wards ever a pleasure to walk through, and with radar sets, fountains, rouged clowns and spaceships there can have been few cupboards left untouched and ideas left sleeping. Even the long nurses' capes touched off favourable comment in the national press. Many, many resolutions, however, must now lie broken and pushed away under the carpet to wait for the next New Year. The Christmas Show in the Physiology Theatre was enjoyed by large audiences on both Christmas and Boxing Day and there was a welcome number of new, fresh and enthusiastic faces appearing on the stage for the first time. The beginning of the year will never lose its fascination. There will always remain the magic multiple between the unknown and the predictable. We hope it will equal satisfaction, happiness and good health to all.

What's in a name ?

The idea has been mooted of "a celebrity" being invited to open the new Students' Club in Old Guy's House. As we have received no enlightenment as to what type of " celebrity " the Club's Union had in mind, we wondered if we could offer some suggestions. Many of the modern show-business stars are probably disqualified by being under the drinking age, and Dr. Kildare might well feel squeamish when confronted by a real live nurse. Not that that is likely in the select atmosphere of the Students' Club. With more mature celebrities there may even be the risk of their confusing the event with their frequent openings of garden fêtes, youth clubs, and supermarkets, all institutions very different, we trust, from our new workers' paradise. In fact, the problem of selection becomes surprisingly complex, and perhaps one should turn away from the entertainment world and aim higher, or lower (depending on one's attitudes). But politics is far too dangerous with an election coming up, and even elder statesmen are either too fragile or too expensive. Of the other major

classes of celebrity, judges prefer to remain anonymous, and the army is recruiting enough Guy's men already. Royalty is mainly unavailable for the early part of this year, so that if we really want publicity we shall have to resort either to the Bishop of Woolwich or that other royal family, those Beatles again.

At a recent meeting, the *Gazette* committee regretfully accepted the resignation of Gordon Reeves as Editor. His has been a long term of office which has altered radically the face and image of the *Gazette*. He has worked tirelessly to present a Gazette which would suit most nearly everyone's taste, and in a form where it is easy to assimilate fact and comment and also to make it a pleasure to read. At the same meeting the committee appointed Brendan Hicks as the new Assistant Editor.

We are sorry to hear of the recent death of L. G. Housden, O.B.E., who was a distinguished ex-editor in the middle 1920's. An obituary will appear in a later issue.

GUY'S DIARY

JANUARY

EXHIBITION. *The Supra-renal*

13th	M.	1.00	Dr. BAKER. Clinical Lecture. *The use and abuse of rest,*
14th	Tu.	1.00	Mr. BLACKBURN. Clinical Lecture. *Gastro-Intestinal Bleeding.*
16th	Th.	1.00	Mr. WILMORE. Clinical Lecture.
16th	Th.	5 p.m.	Mr. M. FALCONER. Neurosurgical Round. Clinical Theatre.
17th	F.	1.00	Dr. MacLEAN. Clinical Lecture. *The use of Antibiotics in General Medicine.*
20th	M.	1.00	Mr. GIBBERD. Clinical Lecture. *Asphyxia Neonatorum.*
21st	T.	1.00	Professor ATKINS. Clinical Lecture. *Breast Diseases in General Practice.*
24th	F.	1.00	Dr. KAUNTZE. Clinical Lecture. *Dust Disease of the Lungs.*
25th	S.	10 a.m.	Clinico-Pathological Meeting. Clinical Theatre,
27th	M.	1.00	Mr. BLAIKLEY. Clinical Lecture.
28th	Tu.	1.00	Mr. CLARKSON. Clinical Lecture.
30th	Th.	1.00	Mr. WASS. Clinical Lecture.
31st	F.	1.00	Dr. HOUSTON. Clinical Lecture.

We offer our congratulations to Dr. D. J. Anderson on his appointment as Professor of Physiology in relation to Dentistry as from January, 1964.

Lord Cunliffe

The Superintendent writes,

Your obituary of Lord Cunliffe stressed the great services he rendered Guy's over many years, but it would be only appropriate if I, as one of those who in recent years worked closely with him, recalled something of his remarkable interest in the Hospital. Guy's has been fortunate in its Treasurers—Lord Cunliffe still liked to use the old term—and not least in the man whose work has been cut short so

recently. Only the evening before he died I called to ask after him and was asked to stay: his first questions were: "What have you got to tell me about the Hospital? What is happening?" His concern for Guy's and interest in its future never waned.

He regularly went round the wards and was always talent-spotting, looking maybe for future sisters, or assistant matrons. He knew well the importance of the catering department, the works department, the laundry, the domestic staff to the well-being of the Hospital, and was keenly interested in all their problems. No one could have taken a more serious and personal interest in these intimate aspects of running a big hospital. There was no problem on which he was not well-informed, and since he kept a finger on all the pulses he was quick to notice if one was getting tired, and some action was needed.

He was normally patient, tolerant, ready to see the funny side, and he did not expect miracles. He held that above all good relationships were important between members of the medical, and dental, staff for the well-being of the Hospital and Schools. He never seemed to bear ill-will, and if cross words had been spoken, the opportunity was soon made for them to be expunged from the record.

Lord Cunliffe's familiar figure, usually without coat or hat, but carrying an umbrella, will no longer be seen arriving on foot three or four days each week, and we will only gradually come to know at Guy's our full loss.

NOTICES

Christian Training Week

Under the title "Believing and Doing" there is to be a University Christian Teaching Week from January 12th to 19th, arranged by the Anglican Chaplaincy in the colleges of the eastern area. Some of your readers will be interested in what is proposed at Guy's. Our missioners are the Rev. J. W. Lee, Vicar of St. Paul, Nelson, and the Rev. E. Shotter of the Student Christian Movement. From Monday to Friday there will be meetings in the Students' Union at 5.15 (but at lunchtime on Wednesday); Holy Communion in Chapel daily at 8.20; and informal coffee parties in various places in the evenings. All members of the hospital community are welcome to come to the meetings and we hope they will make use of the missioners who will be available throughout the week. The purpose of the exercise is to get people to consider whether the Christian faith makes sense and whether it works in practice. What so many people have rejected is in fact a parody of what the Church teaches.

A. J. M. SAINT,
Resident Chaplain.

GRAHAM STIMPSON,
Hon. Sec., C. of E. Society.

Dental Society

The Annual Dental Clinical Meeting will be held in the Dental Department on Saturday, 7th March, 1964, and the Dental Society Dinner will be held in the evening. A programme of the Meeting will be published in the *Gazette* on 22nd February, 1964.

F. S. WARNER.
Dean of Dental Studies.

A SCIENTIFIC BACKGROUND TO CLINICAL MEDICINE 17

The Chemistry of Connective Tissue

by MARGARET WHICHELOW

Connective tissue, which occurs in or around every organ in the body, is made up of three main components. The cells—the fibroblasts—are responsible for the formation of the two extracellular components, the ground substance and the insoluble fibres. Due to the complex nature of the ground substance and the fibres and the difficulties of separating the various components without radically altering their structure and properties, it is only recently that major advances have been made in understanding connective tissue. The fibrous protein, collagen, has been intensively studied on account of its importance in the leather and glue industries.

The amounts of the two extracellular components vary considerably from tissue to tissue. Tendon and ligament consist mainly of fibrous tissue—collagen in tendon and elastin in ligament—whereas in synovial fluid and vitreous humour the ground substance is the major component. Connective tissue occurs to a smaller extent in other parts of the body, for example in the dermis, cartilage, the kidney, the lung and wherever two surfaces meet. Bone is a highly specialised form of connective tissue where mineralisation occurs around the collagen fibres, giving the bone its hard and rigid structure. There is connective tissue present between the muscle bands of the aorta, which has been studied extensively, especially in relation to arteriosclerosis.

The composition of connective tissue in various organs is also affected by age and disease. With increasing age collagen becomes replaced by elastin, and there are also changes in the ground substance. In a number of diseases, rheumatoid arthritis, lupus erythematosus, scleroderma and arteriosclerosis, for example, degenerative changes occur in the connective tissue.

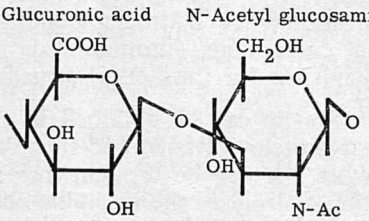
Ground Substance

The term "ground substance" covers the family of acid polysaccharides found in connective tissue. These polysaccharides fall into two groups, the non-sulphated or simple mucopolysaccharides and the complex mucopolysaccharides, which contain a considerable amount of sulphate. All these mucopolysaccharides consist of unbranched chains of repeating disaccharide units. The different properties of the various polysaccharides can be ascribed to the substituent group on the saccharide units. The non-sulphated polysaccharides, hyaluronic acid and chondroitin which have N-acetylated

groups have the ability to bind large amounts of water. In the case of hyaluronic acid which is present in large amounts in the synovial fluid, a thin gel is formed by the combination of water and the polysaccharide, forming an excellent lubricant. On the other hand the sulphated mucopolysaccharides—the chondroitin sulphates A, B and C—which are present in cartilage, bone, cornea, tendon, skin, aorta and heart valves and have sulphate as well as N-acetylated substituent groups—bind protein rather than water. This gives them a structural rôle. The rigidity of the rabbit's ear is due to the combination of chondroitin sulphate with protein. When the proteolytis enzyme papain is injected into a rabbit the protein is destroyed and the ear "flops".

Hyaluronic acid is made up of a repeating disaccharide unit known as hyalobiuronic acid. This disaccharide is composed of glucuronic acid joined by a 1—3 linkage to N-acetyl glucosamine. The hyalobiuronic acid units are joined together in a 1—4 linkage. Chondroitin differs from hyaluronic acid only in that N-acetyl galactosamine replaces N-acetyl glucosamine.

Chondroitin sulphates A and C are very similar to one another and to the chondroitin. After desulphation they can be hydrolysed to give the same disaccharide as chondroitin, namely chondrosine. The only difference between chondroitin sulphates A and C therefore is the position of the sulphate which in A is in the 4 position and in C is in the 6 position. Chondroitin B has, like A, the sulphate in the 4 position, but here the glucuronic acid part of the molecule is replaced by iduronic acid.



Hyalo biuronic acid

Little is known about the biosynthesis of the mucopolysaccharides in animals. However, studies of their synthesis in bacterial walls have shown that the nucleotide uridine is important. In order to incorporate glucuronic acid and N-acetyl glucosamine into hyaluronic acid these have to be present as the uridine diphosphate derivatives. Free glucose and glucosamine can act as precursors for hyaluronic acid, but they are converted to the uridine derivatives before incorporation, since the uridine derivatives of glucose, glucosamine, N-acetyl-glucosamine and glucuronic acid have been isolated from bacterial wall systems. In the case of the sulphated polysaccharides, sulphation may occur at the uridine derivative stage, or later when polysaccharide molecule has been formed.

Fibres

Collagen and elastin are insoluble proteins which occur mainly as bundles of fibres. Collagen fibres are white, swell easily in dilute

acid and are easily converted to gelatin by heating. Elastin, which has a yellow appearance, does not swell in acid and is less reactive chemically than collagen. Collagen predominates in young tissue, and occurs alone, whereas elastin is always associated with some collagen. The fibrous protein network in connective tissue known as reticulin was thought to be a separate protein, but current opinion favours the idea that reticulin is a network of collagen fibrils which are held apart by the binding of polysaccharide.

Originally amino-acid analyses of collagen were performed on gelatin; these gave results which were slightly different from those using techniques in which the collagen is dissolved in neutral salt. Collagen and elastin are unique amongst the body proteins in containing the amino-acid hydroxyproline. This is present in large amounts in collagen, as indeed, are other non-polar amino-acids. Glycine and alanine account for about one-third of the amino-acids, and proline and hydroxyproline for another third. The number of basic and acidic groups in the few polar amino-acids are nearly equal, giving collagen its neutral properties. X-ray diffraction and infra-red studies have shown that collagen consists of three chains of amino-acids, which wind around each other in a left-handed helix, bound to one another by hydrogen bonds. The large numbers of pyrollidine ring compounds—proline and hydroxyproline in the chains are responsible for the helical structure.

Elastin can be obtained in a pure state, since it is insoluble in most protein solvents, and thus can be washed free of contaminating protein. It can be brought into solution with hot dilute oxalic acid which hydrolyzes the insoluble elastin in the same way as the enzyme elastase, first giving α elastin, a soluble protein with a molecular weight of 20,000 to 80,000, and this breaks down further to β elastin which has a molecular weight of about 6,000. The amino-acid composition of elastin varies with the age of the source tissue, the older elastins being more like collagen. Elastin contains an even higher percentage of non-polar amino-acids than collagen, with again large numbers of glycine, alanine and proline residues. The hydroxyproline content is, however, low.

Little collagen seems to be synthesised in adult life, except in the case of healing after injury, but collagen formation can be induced "in vivo" by the subcutaneous implantation of polyvinyl sponges or the polysaccharide, carageenin. Studies with C^{14} glucose and C^{14} lysine have shown that these amino-acids are first incorporated into the neutral salt soluble collagen, and then later into acid soluble collagen. This indicates that it is the newly-formed collagen which is easily soluble, and that the fibres of older collagen become more closely bound so that they are more difficult to dissolve. In embryonic tissue small rod-like structures known as tactoids, which are easily soluble, can be distinguished. These collagen precursors can, under the right conditions of ionic strength, be induced to form fibres. Very similar structures to these tactoids are formed by the proteolytic action of enzyme collagenase on collagen.

The formation of the fibres and their precursors seems to take place either outside the fibroblasts or at the cell wall, but not inside the cell. Fibroblastic activity has been observed in tissue culture of chick embryo skin. The cells contain very mobile cytoplasmic granules which are constantly protruding through the cell wall, and are thought to be the site of collagen precursor synthesis. Proline, but not hydroxyproline, is readily taken up by these particles and incorporated into collagen. The hydroxyproline in collagen seems to be formed from proline by the cells, and then incorporated into the molecule.

Ascorbic acid has an important rôle to play in collagen synthesis. Collagen formation is increased in the presence of ascorbic acid, and it has been suggested that it acts at the hydroxyproline formation stage. Mucopolysaccharides, RNA, the ionic strength and pH all affect the formation and dimensions of fibres. In Cushing's syndrome fibre formation is decreased under the influence of adrenal cortical hormones.

Enzymes affecting connective tissue

Little is known of the enzyme systems, which must occur in connective tissue, responsible for the synthesis and break-down of collagen, elastin and the ground substance. However, proteolytic enzymes have been isolated from the pancreas which attack collagen (collagenase) and elastin (elastase). The physiological rôle of the enzymes is not yet clear. If they are endocrine in secretion they must presumably find their way to the bloodstream, and if exocrine, to the gut, to act, in carnivores, on connective tissue fibres of ingested meat.

Collagenase (which is also found in clostridia) brings about the solubilisation of collagen. The ultimate products of digestion are small molecular weight peptides, which contain very little hydroxyproline. They are similar in amino-acid content to pseudo-elastin and are easily digested by elastase. It would seem, therefore, that the action of collagenase is at the hydroxyproline residues. The effect of collagenase depends on the age of the collagen. Young collagen fibres are broken down to tactoids, then to beaded fibrils and to beads of protein. However, in older collagen irregular holes appear in the substrate, which finally breaks down into an amorphous mass.

Elastase is the only enzyme which has any appreciable effect on elastin; other proteolytic enzymes having a very low level of activity. Elastase becomes bound to its insoluble substrate through the carboxyl groups on the elastin molecule, but this binding, and thus the subsequent action of elastin, can be inhibited by chelating agents, such as EDTA. The EDTA binds calcium ions, which, therefore, seem to be necessary for the binding of enzyme and substrate. It is interesting to note that there is a large amount of calcium in aged aorta, which will permit the activity of elastase, and may account for the degenerative changes seen in this tissue in old age. Elastase acts readily upon old elastin, but requires the presence of another enzyme, a lipase found in blood called E, in order to act on young elastin. This suggests

that elastin may be a lipoprotein, lipid being bound to the elastin molecules by Van der Waal's forces.

The primary action of elastase is to break the inter-chain bonds, so that there is a change in the physical properties without the appearance of any free amino or carboxyl groups. Next, peptide bonds are broken and soluble elastin is formed, which is further split to smaller molecular weight polypeptides.

As far as the metabolism of ground substance is concerned, most is known about the testicular and bacterial enzyme, hyaluronidase. This enzyme acts on hyaluronic acid at the N-acetyl-glucosaminidic bond liberating free hexosamine. This destroys the gel-like quality of hyaluronic acid and the viscosity decreases.

Effects of age and disease

The collagen diseases—rheumatoid arthritis, lupus erythematosus, polyarteritis nodosa, scleroderma etc.—all exhibit degenerative changes in connective tissue. The fibrinoid nodule of rheumatoid arthritis, although containing protein which stains like fibrin, may in fact be composed of breakdown products of collagen. Another possibility is that, since the fibrinoid contains very little hydroxyproline, the lesion is due to an inability to form hydroxyproline and thus form collagen. In scleroderma the skin loses its elasticity as the elastic fibres are broken up. The collagen fibres become surrounded with polysaccharide material—probably cellulose—and are protected from attack.

In senile elastoses and in arteriosclerosis there is an apparent increase in elastin staining material, which is actually the product of collagen breakdown. This material is known as pseudoelastin. In true elastoses there is a real increase in elastin with no change in collagen.

NOTICES

The Cruelty to Animals Act

Dr. R. S. Vine, B.Sc., M.R.C.S., L.R.C.P., Chief Home Office Inspector, will give a special invitation lecture on the "Cruelty to Animals Act". This will be held in the New Staff Common Room of the Medical School, on Wednesday, January 22nd at 4.45 p.m. Tea will be served at 4.30 p.m. and all members of the Medical School and Hospital staff and all licence holders are cordially invited to attend.

F. M. SULLIVAN,
Secretary, Animal House Committee.

The 59 Club

The fifth dinner of the 59 Club will be held at Ye Olde Cheshire Cheese, Fleet Street, on March 13th, 1964, at 7.00 p.m. for 7.45 p.m.

Will those members of the Club wishing to attend please contact the Secretary.

C. J. ROWLAND,
Hon. Sec., 59 Club.

30, Kelvin Grove,
Chessington,
Surrey.

GUY'S AT HENLEY
1840—1963

A brief account of the Boat Club's appearances at Henley Royal Regatta, by D. K. C. COOPER (Captain, Guy's Hospital Boat Club, 1962-63).

Henley Royal Regatta can truthfully be called the Mecca of all oars men. In September, 1962, several members of the Guy's Hospital Boat Club embarked on a strenuous course of training that was to continue throughout the bitterly cold winter and following spring, and which culminated in July, 1963, in the hospital's fifth appearance on that famous stretch of the Thames below Henley bridge. When we began training a year ago I was stimulated to gain some knowledge of Guy's previous entries to the regatta ,and the obvious source of information was the *Guy's Hospital Gazette.* Browsing through old copies of the *Gazette* in the Wills' Library proved to be most interesting, informative and entertaining and I can strongly recommend this pastime to anyone who takes an interest in the history of the hospital and who has an hour to spare.

In the edition of the *Gazette* of March 5th, 1887, a short notice, squeezed in at the bottom of the last page, states:—" Steps are being taken to call a meeting to consider the advisability of forming a Guy's Hospital Rowing Club". Later in that year a brief report appears stating that the Club was "in full swing". Although nothing appears in the *Gazette* before this date regarding a Boat Club at Guy's—though the *Gazette* only goes back to 1872—there is evidence that Guy's students were rowing as early as 1840 and considerable evidence that the Club entered a four at Henley Royal Regatta in 1846, only seven years after the inauguration of the regatta.

First Appearance

In a letter to the Gazette of August 21st, 1920, a Mr. Tom Bird congratulated the hospital on the revival of the Rowing Club after some years of non-function and included several reminiscences on previous rowing at Guy's notably:—

> " Mr. Cooper Forster had rowed bow of a Guy's four at Henley for the Stewards' Challenge Cup in 1846, and there is mention in Bell's Life of the account of Henley regatta in 1840, as follows : ' Among the boats on the reach were noticed the eight-oared wherry belonging to the Guards, the eight-oared gig of the Travellers' Club, the Magdalen Hall cutter, the four of Guy's Hospital, etc.'."

Whether the Guy's four actually took part in the regatta itself is doubtful, for I believe that in 1840 the only events for four-oared boats were confined to local clubs, and Guy's would not have been eligible until 1841 when the Stewards Challenge Cup was instituted. However, for the purpose of this account the 1840 entry will be considered Guy's first "appearance" at Henley.

The fact that the Boat Club was active as early as 1840 makes it, I believe, the oldest sports club in the hospital—the Rugby Club being founded in 1843.

Second Appearance

The 1846 entry is mentioned several times by correspondents to the *Gazette,* the first occasion being in a letter in the edition dated the 9th September, 1905, when "Captain, Oriel Coll. 1963, 64, 65," writes:—

> "The hospital, however, had a boat club in 1846, for in the records of Henley Royal Regatta, compiled by the loving industry and ever-verdant enthusiasm of my old friend, Herbert Thomas Steward, President of the Leander Boat Club, I find:—
>
> '1846
> Stewards' Challenge Cup.
> 1st Heat.
>
Guy's Club, London.		Dreadnought Club, Henley.
Bow. J. C. Forster	.. ..	10 st. 4 lbs.
2. H. M. Gruggen	.. ..	11 st. 7 lbs.
3. W. Ferguson	.. ..	13 st. 0 lbs.
St. G. Cooper	.. ..	11 st. 4 lbs.
Cox. A. Poland.'		

The records continue:—

> "This was so close a race that the umpire declined to decide which had won, it was therefore given as a dead heat. The Dreadnought Club, however, who said they were convinced they had won, refused to row the race again, so Guy's Club contended in the final heat.
>
> "Final Heat.
>
> "Here I am sorry for once to say they met my old University and were not successful."

According to Wilks and Bettany ([1]) bow of this four, Cooper Foster, became "the best amateur trainer on the Thames". He must have been a most pleasant coach to row under, for the *Gazette* reports that he met his crew at the finishing post "with champagne cups and cigars".

In the same edition of the *Gazette* the writer of "Passim" reflects on the difficulties of rowing for the Guy's medical student, difficulties which appear to have changed little in the intervening sixty-two years:—

> "There are, of course, many difficulties in the way. The expense is great, and medical students are not rich. The demand on time is also great, and the emergencies of modern surgery and modern medicine, too, are not such as to allow of very regular practice. Now a man may play in a cricket team twice and miss the third match and do no great harm, but if a crew is to make progress there must be no changes. For both these reasons, hospital rowing must always be difficult to maintain, but not, we think, impossible."

How heartily I agree with the writer. He pinpoints the three major difficulties of money, time and continuity of crew. The 1963 Guy's crew ran into all of these troubles in abundance.

When the Boat Club's financial reserves became extinct early in the summer of this year and we were forced to pay all future entrance fees and travelling expenses ourselves, I remembered the words, "The expense is great". "The demand on time is also great" was another phrase which came into one's mind as one dashed from the hospital to Putney to train in the evening, only to return later to finish work that had to be done. On the first day of our stay at Wargrave, near Henley, only twelve days before the regatta, when our bow man was packed off home for a few days suffering from mild German measles, a third phrase from that so accurate "Passim" of 1905 ran through my mind—" . . . but if a crew is to make progress there must be no changes".

Third Appearance

Following the 1846 entry, no further crew represented the hospital at Henley until 1936, though the Club did enter eights at Marlow and other up-river regattas on several occasions in the intervening years. In the *Gazette* of the 10th October, 1936, an excellent report appears on the "Boating Club at Henley". In that year the Club won the Inter-Hospitals Cup and four of the members of that eight formed a crew to enter the Wyfold Challenge Cup at Henley. The report on their stay at Henley (or to be precise at "Bourne End, where we had been lent a bungalow") shows many similarities to our own stay this year at Wargrave, where we had the good fortune to go one better, having been loaned a house.

It is interesting to note that their daily routine was essentially the same as ours:—

"Our daily routine was to leave for Henley after breakfast, a morning outing of long pieces of paddling from Hambleden to Marsh lock and back—about six miles—and then lunch at the 'Stag and Huntsman', at Hambledon, where we were looked after very well. The first half of our afternoon was spent lounging in the luxury of Phyllis Court, and we usually had our second outing before tea; this journey was about eight miles and taken up with rowing starts and pieces of rowing.

Our outings were seldom dull, mostly due to the keen interest we all took in helping bow steer the boat" (they were rowing in a coxless four) "—not that he really needed any help, but there were one or two startling moments—once the boat completely disappeared into the bushes by the island, and another time we nearly hit the flagpole on the island above the Bridge".

When at Chiswick Regatta, 1963, the Guy's bow steered us straight into a ladies' crew, nearly beheading their cox with his oar and thus losing us the race by a vast distance, I was reminded of the difficulties that the 1936 crew had suffered in this respect. However, we were fortunate that Peter Venning, this year's bow-steers, later mastered the difficult task and steered magnificently at Henley.

The 1936 four also had other difficulties:—

"It was a great bone of contention that after a start the boat slid across on to bowside; only once did we actually hit the booms, and something of our keenness may be realised from the fact that three was still

rowing on with tremendous vigour—and his blade the other side of the booms! This and other little controversial points and theories were usually the theme of our daily hate at tea; it was remarkable how argumentative one became —we spent the whole of one dinner-time on the causes and treatment of constipation, and another on the psychological classification of individuals."

The 1963 crew also used dinner to discuss a variety of subjects ranging from the treatment of traumatic ulcers of the buttock, from which one of our members was suffering as he loudly told us in rather doubtful language every time he got into the boat, to the subject of moth-catching —an art in which our chief coach, Tim Peet, was highly skilled, and which he practised in the garden with the aid of an unbelievably bright ultra-violet light which kept both the moths and half of the neighbourhood awake at nights.

On the first day of the 1936 regatta at 11.35 a.m. (this year's Guy's crew rowed ten minutes later on the same day) the Guy's four met Thames R.C., who were "four stones heavier" (just as our opponents this year weighed four stones more than us). The 1936 crew rowed splendidly, putting in several excellent bursts to lose by only three-quarters of a length against very strong opposition, while I am sorry to relate that this year's crew, despite every effort, again against very powerful opposition, lost by a margin of four to five lengths. However, there is one further similarity between the races, and that is that both winning crews put up "the fastest fours time of the day", no doubt as much a consolation to the 1936 crew as it was to us this year. The members of the 1936 Wyfold Four were:—

"Bow and steers ..	E. R. Roseacre ..	10 st. 8 lbs.
Two	J. P. Henry ..	9 st. 13 lbs.
Three	C. D. Cormac ..	13 st. 1 lb.
Stroke	J. W. S. Harvey ..	11 st. 6 lbs.

Fourth Appearance

In 1945, Guy's entered for a fourth time. A short report appears in the *Gazette* of 21st July, 1945:—

"Henley Royal Regatta—the first for six years—was organised for Saturday, July 7th, 1945, as a one-day regatta with races for all-comers eights, schools' eights and sculls.

Although the regatta was on a somewhat reduced scale, it lacked none of the pre-war brilliance and spirit.

Guy's were unfortunate in having to make a last-minute alteration in their crew, the situation being summed up very typically by a newspaper correspondent who wrote:—'Cox Shotts one of the eight'. R. T. Lowein was unable to row following an ankle injury the day before the race; instead, F. de Hamel stroked the eight with A. Shotts at No. 2, and A. Fooks taking his place as cox."

This is the only occasion on which the hospital has been represented at Henley by an eight. The crew raced in a heat of the all-comers' race

against both Thames R.C. and Pembroke College, Cambridge. This must have been considered a tough draw and Guy's did well to beat Pembroke, though losing by $1\frac{3}{4}$ lengths to Thames. The crew contained the following members:—D. G. Brett (Bow), A. A. Shotts, C. H. Williams, C. C. Bull, A. F. Crick, J. A. Inskip, T. H. S. Burns, F. de Hamel (stroke), A. Fooks (cox).

Fifth Appearance

This brings us to the present year and to the Boat Club's fifth appearance at Henley ([2]) in the 123 years since "the four of Guy's Hospital" was seen " among the boats on the reach " in 1840, only one year after the regatta was established. To those of us who rowed in this year's crew the regatta means more to us than a report in the *Gazette*. It means nearly one thousand miles of training on the river in a little over nine months; it means innumerable circuit training and road-running sessions; it means butterflies in one's stomach before an important race, the pain of exhaustion at the finish, the excitement of winning and the depression of losing. To those who rowed for Guy's at Henley on previous occasions the regatta must also have meant much more than we can gather from brief reports.

I can find no better way of concluding this short account of Guy's activities at Henley than by quoting a few lines from a letter entitled "Rowing Reminiscences at Guy's" to the *Gazette* of September 23rd, 1905. The letter, which contains several entertaining and humorous incidents that befell members of the Boat Club in days gone by, is signed "A.A.", almost certainly the initials of Arthur Allport, one of the finest all-round sportsmen Guy's has ever produced. Although writing of the Boat Club as it was in 1888, his words are surely equally referable to this year's crew, and even to all of Guy's previous Henley crews. I know, at least, that the other members of the 1963 boat would join me in saying that Allport expresses our sentiments when he writes: ". . . although our efforts were not attended by any successes, yet we did a lot of trying and got much health and amusement from our efforts". Let us hope that if the efforts of recent years continue, success will follow.

REFERENCES

([1]) **Wilks & Bettany**—*Biographical History of Guy's Hospital*, **Bk. IV, Chap. III.**
([2]) **"Guy's Hospital Gazette"**—Volume 77, No. 1959, page 434.

NOTICE

Boxers' Dinner

The Guy's Past and Present Boxers' Dinner will be held at The Grapes, in St. Thomas's Street, on Friday, 6th March, at 7.0 p.m. for 7.30 p.m. All past members who wish to attend are asked to contact the Secretary.

W. M. SHEERAN,
Secretary.

262, Portland Road,
London, S.E.25.

CORRESPONDENCE

South Africa

SIR,—Mr. Keith Duff, in your Christmas issue, states that most Europeans who have spent any time in Africa will admit that apartheid is the answer in South Africa. Surely the doctrine of apartheid is very closely analogous to that of slavery as it was viewed by most of the more prosperous citizens of Britain in the early years of the nineteenth century.

Sir John Gladstone, father of the famous Liberal Prime Minister, was a Tory M.P. from 1818 to 1827, when he was unseated for bribery. He was the owner of extensive sugar plantations in the West Indies and many slaves. Starting from humble beginnings he left a fortune of £600,000. Though a devout member of the Church of England he argued that missionaries had acted as revolutionary agents; that slavery had been sanctioned by providence in certain climates since history began and that the difficulties in the way of emancipation were insurmountable.

William Gladstone, son of Sir John Gladstone, was elected Tory M.P. for Newark in 1832. His views on slavery were less definite than those expressed by his father. In his election address he stated that while he desired the extinction of slavery, he considered the ground should first be well prepared; otherwise emancipation would prove "more fleeting than a shadow and more empty than a name". Nevertheless, slavery was abolished in the British Empire by 1839. Owners of slaves, including the Gladstone family, received liberal compensation.

Those of us who criticise the rigours of apartheid should not forget that many of our own ancestors a century and a half ago regarded slavery as a gift from Providence if not from God. However, there are grounds for hope that apartheid will have died a natural death in a far shorter time than the British Empire took to abolish slavery.

Yours, etc.,

J. J CONYBEARE.

14, St. Thomas's Street,
London, S.E.1.

The Dental School

SIR, Graduates of the Dental School will be interested to learn of the decision of the Board of Governors of Guy's Hospital and the Council of Governors of Guy's Hospital Medical School to hold a dinner at the Dorchester Hotel, London, on Wednesday, 14th October, 1964, to celebrate the 75th anniversary of the foundation of the Dental Hospital and School.

Further details will be annouced later.

Yours, etc.,

F. S. WARNER.

Dental School,
Guy's Hospital.

The Residents' Play

SIR, The Residents' Play this year will take place from February 24th to the 28th inclusive, at 8 p.m. each night in the Physiology Lecture Theatre.

Applications for tickets should be addressed to the President of the Residents, c/o The College, and should be in not later than January 31st. Any donations towards the cost of the production will be gratefully received.

Yours, etc.,

C. I. ROBERTS,
President of the Residents.

SPORT

RUGBY FOOTBALL

Boxing Day this year provided conditions fit enough for the annual Staff versus Students match to be played. To the obvious dismay of some of the players who had gathered at Honor Oak Park for the next act of the festivities, not for one minute thinking that rugby would feature in the programme, twenty-nine players, a referee, two glamorous touch judges (whose knowledge of the game made one wonder what turn "equality" will take next) and a dozen hardy spectators dragged themselves on to the pitch.

Mindful of their status, it was immediately obvious that the Staff (with two ex-captains of rugby and two distinguished ex-players) were determined to lay the bogy surrounding the match. With amazing speed, agility and unsuspected stamina, they gambolled delicately around the field as if they'd never heard of Christmas. The students, meanwhile, had their own problems with faces going green and puce, and the blood in their alcohol-stream finding its job rather hampered. One student retired at half-time to lighten his load, one got in some cricketing practice with an over-arm bowl in to touch that reminded one of balmier days.

The whole fiesta was conducted by an active referee new to the job, whose staff position equally enabled him to keep up smartly with play in one capacity or another. The result—five tries to nil—but did the staff only celebrate the seasonal festivities after the match?

On the following Saturday, the 1st XV took on Old Merchant Taylors, probably the best Old Boys club in London. Two penalties by Edgar settled the issue, and generally the players performed well.

The next opponents were Richmond, on the morning of the All Blacks match at Twickenham. At the start, the journalists outnumbered the spectators, and Wright was very unlucky not to be awarded a try after one of his now typical bursts from his own half. The rest showed us outside play we were to be denied later in the day, and Richmond ran out worthy winners. Guy's forwards never really woke up until it was too late, and the outsides were never quite quick enough into the tackle. Perhaps the side should have watched the Staff side on Boxing Day for a lesson on early-morning play!

TABLE TENNIS

Since the date of the last report, the first team has won three matches and lost two, and are lying in fourth position in the University second division, within striking distance of the second club. Thus, the team are progressing this season as forecast, although in two important matches they have been hit by illness.

When facing Queen Mary College without Brook, (who was away ill), Parfitt, Le Sage and Goddard were unfortunate to lose by six games to four. Parfitt played particularly well, winning all three of his games convincingly, and Goddard, who deputised at short notice, exceeded all expectations of his form.

Queen Elizabeth College presented a much easier prospect, and their team was convincingly demolished by ten games to nil. With Parfitt, Le Sage and Brook all playing well, the team's full potential was realised for the first time this season. Certainly the opposition was not the weakest met during the past term.

After a poor start, Goddard is now organising a reasonable second team, largely by means of his own hard work. Their results have been improving recently, and they could achieve considerably more success in the second half of the season.

RUGBY FOOTBALL

GUY'S v. OLD MERCHANT TAYLORS

At H.O.P. 28th December, 1963.

Result: won 6—0

Guy's thoroughly deserved their win and the score does not suggest their true superiority. Only poor finishing prevented further scores. The pack played extremely well, both in the tight and loose. Price hooked well, heeling the ball six times against the head and lost the head only once. Peace was outstanding in the line-outs, and the wing forwards, Baker and Sharp, shone time and time again in the loose.

The backs, too, showed gratifying form and all tackled well

Guy's went ahead midway through the first half when Edgar kicked a fine penalty goal. Prolonged pressure by Guy's produced no further score in this half.

A fine movement just after half time, between Allan, Biggs, Baker and Hendricks, from their own 25, looked promising but a delayed pass allowed the attack to be smothered. Edgar kicked another fine penalty goal, and a glorious break by Allan spread-eagled the opposing defence, but a forward pass prevented a certain try.

Although Guy's went close several times afterwards, the try they deserved didn't come. This was a good win by Guy's but improved passing and backing up the man with the ball will certainly bring tries in future games.

JOHN ONI-ORISAN

Team: R. Myall; R. Kerner, C. Wright, A. Allan, D. Biggs. A. Edgar, H. MacGregor; J. Price, E. Price, A. Fisher; P. Peace, A. Kingdom; H. Sharp, D. Hendricks, I. Baker (Capt.).

GUY'S v. RICHMOND

At H.O.P. 4th January, 1964.

Result: lost 15—0

The match with Richmond this year took place in the morning, due to the International at Twickenham against the All Blacks in the afternoon.

Morning games are renowned for their unexpected results but this was not to be the case. Richmond beat Guy's fairly by 3 goals to nil, and looked the useful side that is their reputation. But let this not depreciate from Guy's valiant efforts which made this an exciting game to watch.

The Hospital pack had to work hard against an experienced pack to achieve their share of the ball. Peace, who was a tower of strength in the line-outs, and the Guy's front row forwards are to be especially commended. Baker and Sharp in the back row were also prominent, but Hawks, playing at flyhalf for Richmond, proved to be an elusive runner, and it was not until later in the game that he could be contained. MacGregor and Edgar both played well though it was unfortunate that Edgar could not find his mark with attempts at penalty goals.

Early in the first half, Wright, who was in interceptive mood, was quick on to a mistake by the Richmond line within the Guy's 25. By strong running and a short kick over the full back he was unfortunate to have been beaten to the touch down.

Richmond retaliated hard and by gaining a larger share of the possession, attacked strongly. A beautiful Richmond threequarter movement resulted in Cook being put over to score. This was converted by full back Burns.

At half-time, Guy's were five points down and the second half began with the same pattern of play continuing. Hawks, taking advantage of a missed tackle, continued his darting run to score well; this was also converted by Burns.

Guy's continued to attack; however, penetration of a good covering Richmond defence was difficult, despite good forward rushes by the Hospital pack, and attempts at drop goal, Guy's appeared unable to score. Shortly before time Richmond's third try came from Webster, converted by Burns, thus putting Richmond 15 points ahead. Nevertheless the Hospital team gave Richmond a testing game and the result should not make them despondent.

DAVID GOURLEY

Team: R. W. T. Myall, D. A. Biggs, C. J. Wright, A. Allan, R. Kerner, A. Edgar, H. M. MacGregor, J. E Davies, E. D. Price, R. Shawfield, P. K. Peace, A. Kingdom, H. Sharp, D. Hendrick, I. A. Baker (Capt.).

LADIES SQUASH

GUY'S v. CHARING CROSS HOSPITAL

Home 29th October, 1963.

C. Stannard, lost 0—2.
A. Moore, won 2—0.
Pr. Heather, won 2—0.
Pe. Heather, won 2—0.
W. Higless, won 2—0.
Guy's won 4—1.

GUY'S v. ROYAL FREE HOSPITAL

Home 9th November, 1964.

A. Moore, won 3—1.
R. Williams, won 3—1.
C. Stannard, lost 1—3.
W. Higlett, won 3—1.
Pr. Heather, won 3—1.
Guy's won 4—1.

GUY'S v. BEDFORD COLLEGE

Home 14th November, 1963.

A. Moore, lost 0—3.
C. Stannard, lost 0—3.
W. Higlett, lost 0—3.
Pr. Heather, lost 0—3.
P. Hubbard, won 3—0.
Guy's lost 1—4.

GUY'S v. MIDDLESEX HOSPITAL

Away 26th November, 1963.

A. Moore, won 3—1.
C. Stannard, won 3—1.
Pr. Heather, won 3—0.
P. Hubbard, won 3—0.
Guy's won 4—0.

HOSPITAL INFORMATION

APPOINTMENTS VACANT

GUY'S HOSPITAL AND SOUTH EAST METROPOLITAN REGIONAL HOSPITAL BOARD

Applications are invited to fill an established vacancy as Senior Registrar in Physical Medicine to the Board of Governors of Guy's Hospital and the South East Metropolitan Regional Hospital Board. The appointment, which will be made jointly by the bodies concerned, will be for the period 1st March, 1964, to 30th September, 1966, and will be held in the first instance at the Regional Hospital and from 1st October, 1965, to 30th September, 1966, at Guy's Hospital. The post in the Regional Hospital will be held in the Bromley, Orpington and Sevenoaks Groups. The post, which will be reviewed annually on 30th September, is subject to the Terms and Conditions of Service of Hospital Medical and Dental Staff (England and Wales).

Forms of application are obtainable from, and should be lodged with, the Superintendent, Guy's Hospital, S.E.1., not later than **24th January, 1964.**

GUY'S HOSPITAL AND SOUTH EAST METROPOLITAN REGIONAL HOSPITAL BOARD

Applications are invited to fill an established vacancy as Senior Registrar in Clinical Pathology to the Board of Governors of Guy's Hospital and the South East Metropolitan Regional Hospital Board. The appointment, which will be made jointly by the bodies concerned will be for the period 1st April, 1964, to 30th September, 1966, and will be held in the first instance at the Regional Hospital and from 1st October, 1965, until 30th September, 1966, at Guy's Hospital. The post in the Regional Hospital will be held in the Lewisham Group. The post, which will be reviewed annually on 30th September, is subject to the Terms and Conditions of Service of Hospital Medical and Dental Staff (England and Wales).

Forms of application are obtainable from, and should be lodged with, the Superintendent, Guy's Hospital, S.E.1., not later than **24th January, 1964.**

HOUSE APPOINTMENTS

MARCH 1st, 1964

Applications are invited for the following House Appointments at Guy's Hospital, due to begin on March 1st, 1964, applications giving choice of post and choice of Hospital, in order of preference, to be lodged with the Superintendent not later than **January 31st, 1964.**

Assistant House Surgeons
Pre-registration 3

The appointment will be for six months, the first three months to be spent as A.H.S. During the second three months of the appointment candidates will move either to the post of Casualty Officer (Surgical) or will remain as A.H.S.

These vacancies will normally be open to Pre-registration candidates applying for their first appointment and not to candidates seeking their second six months appointment.

Assistant House Physicians
Pre-registration 4

The appointment will be for six months, the first three months to be spent as A.H.P. During the second three months of the appointment candidates will move either to the post of Casualty Officer (Medical) or will remain as A.H.P.

These vacancies will normally be open to Pre-registration candidates applying for their first appointment and not to candidates seeking their second six months appointment.

Casualty Officers
Pre-registration 6

House Surgeons
1 Pre-registration
1 Pre- or Post-registration 2

House Physicians
1 Pre-registration
1 Pre- or Post-registration 2

Resident Obstetricians
Post-registration 2
(1 to commence 1.3.64).
(1 to commence 1.5.64).

Throat and Ear House Surgeon
Pre- or Post-registration 1

Dermatological House Physician
Post-registration 1
(To commence 1.5.64).

Neurological House Physician
Post-registration 1

Children's House Physician
Pre-registration 1
(2nd six months candidate only).

House Physician to Dr. Bishop, Dr. Wayte and Mr. McArthur
Pre-registration 1

R.M.O. in Nuffield House
S.H.O. 1

Resident Anaesthetists
1 Post-registration
1 S.H.O 2

House Physicians in Department of Psychological Medicine
S.H.O. 2
(To commence 1.4.64).

The Medical Committee will also consider applications for posts at outer Hospitals as follows —

HITHER GREEN HOSPITAL
House Physician in General Medicine and Infectious Diseases
(Locum from 14th to 28th February)
Pre-registration 1

JOYCE GREEN HOSPITAL
House Physician
Pre-registration 1

LEWISHAM HOSPITAL
House Surgeon to Mr. Cavendish
Pre-registration 1

NEW CROSS HOSPITAL
House Physician in General Medicine
S.H.O. 1

ORPINGTON HOSPITAL
House Surgeon (General Duties with E.N.T.)
Pre-registration 1
House Surgeon (General Duties with Orthopaedic)
Pre-registration 1
House Surgeon (General Duties with Physical Medicine)
Pre-registration 1

QUEEN MARY'S HOSPITAL, SIDCUP
House Surgeon
Pre-registration 1
House Physician
Pre-registration 1

ST. JOHN'S HOSPITAL, LEWISHAM
Casualty Officer
Pre-registration 1
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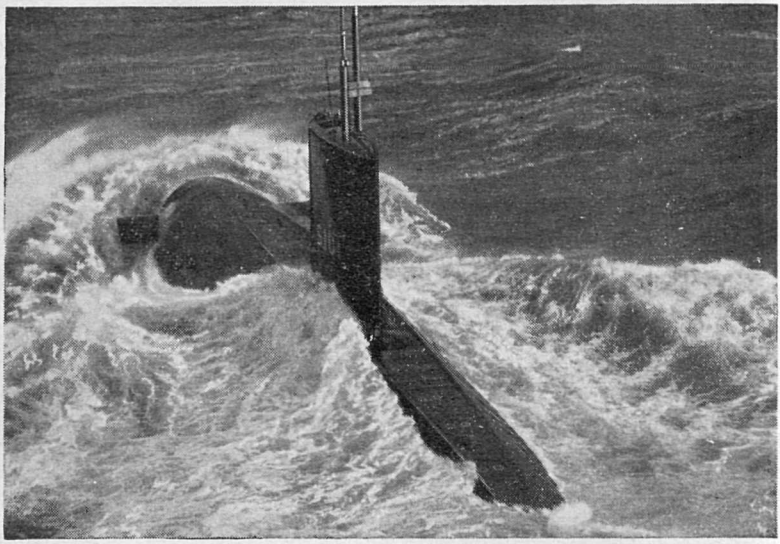

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MO.2D

NOTICE FOR PRE-REGISTRATION CANDIDATES

Pre-registration candidates are reminded that the number of posts at Guy's is small compared with the number of students who are likely to qualify. Students applying at Guy's, therefore, are advised to consider applying for Pre-registration posts elsewhere at the same time, in order to avoid delay in obtaining a post. A number of recognised posts is available in the South-East Region. Details of posts in this region and elsewhere in the country are available in the Medical School Office.

Pre-registration candidates who have completed six months in Medical or Surgical posts are reminded that they must now apply for Surgical and Medical posts respectively. A candidate who has completed his first six months in a specialty (Surgical or Medical) may not do another six months in a specialty, but must seek a post in general medicine or general surgery as the case may be, according to G.M.C. regulations.

J. B. BLAIKLEY,
Superintendent.

NURSING NEWS

Entered

Sister J. E. Evans to Mary 2.
Sister M. C Johnson to Night Duty.
Sister H. Matcham to Addison 2.
Staff Nurse M. Conlin to Cornelius.
Staff Nurse Chaldecott to Theatres.
Staff Nurse T. Folker to School of Nursing.
Staff Nurse E. A. Kett to Nuffield Theatres.
Staff Nurse G. Summerell to Cornelius.

Left

Sister R. Bolshaw from Samaritan.

PASS LIST

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K. G. Korsah

L.D.S.

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R. N. Francis — R. J. Ringrose
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Final Examination, August, 1963

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Medicine

J. A. S. Rice

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Final examination, December, 1963

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M.S.

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D. A. McKay

Midwifery

C. S. Good* — G. W. Stevenson*

*Have now completed examination

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Michaelmas Term, 1963

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T. J. B. Harris — H. D. Tunstall Pedoe
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Part 2 Principles and practice of Physic

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J. R. Bernard* — F. Navab*
R. J. Elliott*

Principles and practice of Surgery

C. B. T. Adams* — F. Navab*
V. Lukshumeyah* — S. M. Wood*

Midwifery and Gynaecology

C. B. T. Adams* — F. Navab*

*Have now completed examination

GUY'S HOSPITAL DENTAL SCHOOL

PRIZE IN GENERAL SUBJECTS

The following Awards have been made:

1st Prize: V. P. Holt.
2nd Prize: Miss S. V. Tate

BIRTHS

DAVIES.—On October 28th, in Montreal, to Kathleen (nèe Hopkins, S.R.N.) and Peter Davies, a daughter, Angela Mary.

HOLDEN.—On 9th November, 1963, at Farnborough Hospital, to Gillen (nèe Conway-Gordon) and Christopher Holden, M.B., B.S., a son, Timothy William, brother for Wendy and Julia

MABERLEY.—On 6th December, 1963, at the Maternity Home, Eastbourne, to Barbara and Michael Maberley, B.D.S. L.D.S., R.C.S., a son, Warren Victor, a brother for Craig and more trouble for Dandy.

DEATHS

HOUSDEN.—Dr. Leslie George, M.D., O.B.E., suddenly at home on the 19th December, 1963, dearly loved husband of Josephine and father of Janet, Susan, and John. Private funeral. No flowers please, donations to the N.S.P.C.C.

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GUY'S HOSPITAL GAZETTE

Vol. 78
No. 1970
fortnightly
one shilling

25th January 1964

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Editors *T. C. Davis*
B. H. Hicks

Sports Correspondent *E. Tiller*

Guy's Hospital, London

PASSIM

That Serum

The leading French physician who said of M. Naessens, "*any empiricist who claims to cure, I do not say treat, but cure, cancer, leukaemia or disseminated sclerosis, is either a visionary or a crook,*" has perhaps been too lenient in his judgment. Certainly there is no evidence to suggest that M. Naessens is a crook, and he has never demanded payment for his revolutionary "treatment", but if he must be called a visionary then he is a highly irresponsible one. Over a period of 14 years, and of two treatments—the first being "chemotherapeutic", he has refused several offers of independent investigation, and he has shown little initiative in obtaining proper assessment of his cases. It is no defence that he should now be agreeable to such an investigation, which can only vindicate or condemn "the serum"; the result will not vindicate the man behind it.

If this serum is found to be of value in the treatment of all cancers, which is the claim made for it, then for four years M. Naessens has been guilty of concealing its formula and the basis of its effect. If, as many suspect, the serum has no significant effect on the course of the disease then the extent of the damage will be even more difficult to estimate. The world's Press will not record the deep frustration and disappointment in homes where hopes have been inflated, and a resigned peace destroyed to no avail. Having seen the smiles on the face "cured" in six weeks, we will not see the tears on other faces. But for this human debt, should it arise, some at least will hold M. Naessens responsible, visionary or no visionary.

And Other Cures

A stroll in the right areas of S.E.1 soon reminds one that the British, too, have their patent medicines. One's eye is caught by the bottle in the window labelled Hop-Bitters, a moment's check that this is no public house, and the rest is sheer delight. After the cruel realities of scientific medicine, here is hope for saddened patients and fantasy for sadder doctors. Here are Rutin Tablets to "restore elasticity to the walls of the arteries (and also cure rheumatism and arthritis)", Vegetable Nerve Tonics to set nerves a-tingling and heads a-buzzing, Blood Pills to cure "those bad legs". A dangerous moment should you mistake your Herbal Smoking Mixture for your Blood Purifying Herbs, but the latter may relieve your eczema, scurvy obstinate ulcers, pimples, blotches, bile and impurities of the blood. Social and political impurities are incurable, of course. What grateful patients must now be thanking their Tremuloids for curing their "nervous disability and seminal weakness!" Where else *can* one find such a broad approach to the complete patient, as in a claim for Herbal Tonic Mixture, "a most effectual remedy for scrofula, scurvy, eruptions of the skin, disorders of the liver, stomach, digestive organs, loss of appetite, rheumatism, piles, jaundice, dropsy, general or

nervous disability, obstinate pain or menopause". Even steroids must bow their head to this.

Discord en Bleu

The very vigour of the reaction, mixed as it was, to the *Gazette*'s "new blue ingredient" was most reassuring if only as a genuine response to stimulation. It is more usual for the provocation occasionally found *between* the covers to fall into an abyss of silence that is almost unnerving. The correspondence column is a ready-made platform for the would-be speaker, whether of Hyde Park Corner or after-dinner variety, and Guy's has many of both. Despite the fact that one of the smaller dictionaries defines a "gazette" as "an official journal publishing lists of appointments, bankrupts, etc.", the Guy's journal hopes to be neither so limited nor so morbid in outlook. After chromatic observations on the cover, dare the *Gazette* challenge its readers to bring the colour of their opinions into its inner reaches?

Memories of that splendid Sisters' Dinner, held only a few short days ago, must suffice until next year when the outside few can again enter into a candle-lit, magnificently spread refectory to sit, taste, relish and digest in good time excellent food and company. The evening ceremony was tinged with nostalgia for those who had passed but the speeches were happy and confident in their thoughts for Guy's in this new year and for the future. The after-dinner cabaret, swash-buckling and under-rehearsed as ever, showed that a little of the year of T.W.3 had left its mark.

GUY'S DIARY

JANUARY			
25th	S.	10 a.m.	Clinico-Pathological Meeting. Clinical Theatre.
27th	M.	1.00	Mr. BLAIKLEY. Clinical Lecture.
			Radiotheraphy and/or Surgery for Carcinoma of Cervix.
28th	Tu.	1.00	Mr. CLARKSON. Clinical Lecture.
			The History of Plastic Surgery in England.
30th	Th.	1.00	Mr. WASS. Clinical Lecture.
			Surgery for Gastric and Duodenal Ulcers.
31st	F.	1.00	Dr. HOUSTON. Clinical Lecture.
			Hypothyroidism.
FEBRUARY			
3rd	M.	1.00	Dr. STAFFORD CLARK. Clinical Lecture.
			Hypnosis and Learning Theory in Psychiatric Treatment.
4th	Tu.	1.00	Dr. HILLS. Clinical Lecture.
6th	Th.	1.00	Dr. CARNEGIE. Clinical Lecture.
7th	F.	1.00	Dr. SCOTT. Clinical Lecture.
7th	F.	1.00	Mr. D. J. NEILL. Dental Clinical Lecture.
			Post-Surgical Prostheses. Dental Theatre.
8th	S.	10 a.m.	Mr. T. T. STAMM. Departmental Round. Clinical Theatre.

OCCUPATIONAL THERAPY TODAY

by DAPHNE PIEGROME, M.A.O.T., S.R.O.T.

I am often asked exactly what is Occupational Therapy and apart from saying it is *not* baskets and rugs I have found it difficult to explain as it covers a very wide field and range of work. Occupational Therapy has been in existence sporadically since the time of the ancient Greeks who recognized work as a form of treatment and rehabilitation for illness. In this country many mental hospitals started Occupational Therapy in some shape or form at the beginning of this century, but as a profession it has only become accepted in the past 30 years. However, it is still viewed with suspicion by some of the medical profession, as the majority are unaware of its aims and the scope of its activities.

In 1958 the World Federation of Occupational Therapists defined Occupational Therapy as "A rehabilitation procedure guided by a qualified Occupational Therapist who, under medical prescription uses self-help, manual and creative, recreational and social, educational, pre-vocational and industrial activities to gain from the patient the desired physical function and, or, mental response." It may be prescribed for one or more of the following reasons.

(1) "As specific treatment for psychiatric patients."

Occupational Therapy plays a large rôle in the treatment of mentally ill patients and will often utilize entirely different activities and skills than would be used with medical and surgical patients. However, the aim is the same; the rehabilitation and the gradual return of the individual to normal, or helping him to live with the mental disability in as full a way as possible.

To these ends the activities used can include cooking, dressmaking, hairdressing, gardening, carpentry, art, music, printing, sport, outings, industrial therapy (which will be discussed at further length later) and group activities of all kinds.

(2) "As a specific treatment for restoration of physical function to increase joint motion, muscle strength and co-ordination."

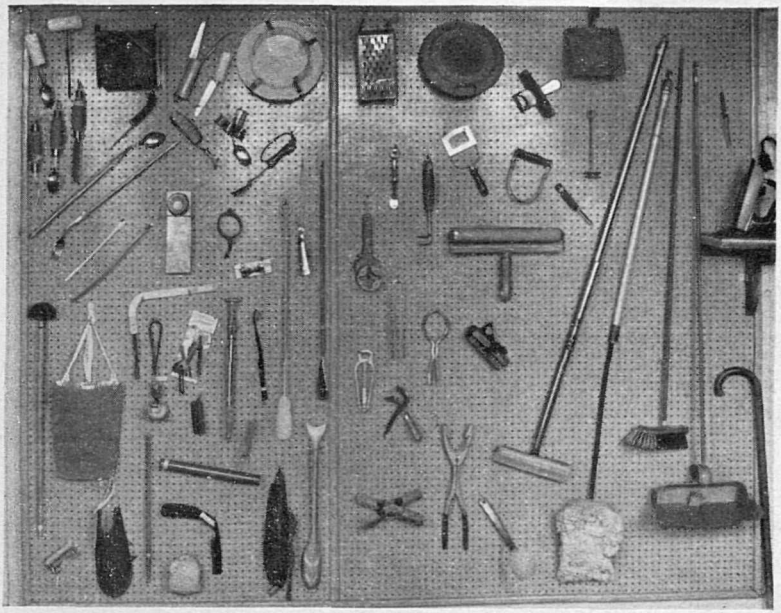
This group includes patients with definite physical limitations such as:—

Orthopaedic patients.
Neurological patients.
Cardiovascular disorders.
Patients with cerebral tumour.
Patients with carcinomatosis.
Rheumatoid-arthritic patients.

Work for these patients is adapted so that they are using a specific movement within a pattern of movement in a normal activity. This can include carpentry and metal-work for heavy workers and labourers and such activities as brush making, painting and wrought iron work for people with arm and shoulder injuries or with neurological disorders that effect muscular co-ordination.

(3) "To teach self-help activities, those of daily living, such as eating, dressing, writing, the use of adapted equipment and prostheses."

This includes all patients with a permanent disability of some kind who are going to have to re-learn how to live with their disability in order to live full and confident lives, and prevent them becoming dependent upon other people or institutions. This includes hemiplegic, polio and geriatric patients, and amputees.



Adapted equipment used by occupational Therapy Departments to help handicapped patients

(4) "To develop work tolerance and maintenance of special skills as required by the patient's job".

Heavy workshops in rehabilitation centres enable patients with special skills to regain a good working tolerance, it also includes Day Hospitals dealing with psychiatric patients who need special help in settling into normal life again.

(5) "As pre-vocational exploration to determine the patient's physical capacities, interests, work habits, skills and potential employability".

These are individuals who will have to change their previous employment or career because of their illnesses. These patients can be assessed through the media of Occupational Therapy for their ability to:—

(a) Concentrate.
(b) Learn and retain what they have learned.
(c) Maintain interest.
(d) Work with other people, or work with or without supervision.

(6) "As a supportive measure, to help the patient to accept and utilize constructively a prolonged period of hospitalization or convalescence".

This can sometimes be called diversional work by the Occupational Therapist, as she is often, unfortunately, used here as a craft instructor and little else. It is most important to occupy long-term cases such as T.B. and orthopaedic patients, constructively, as patients are confined to bed for long periods without really feeling physically unwell. This field can include many other things besides craft work and this is not always realized. Postal correspondence courses can be arranged for suitable patients depending on their educational standards as can also shorthand and typing courses.

As can be seen, Occupational Therapy is a highly-skilled and complex profession and requires a long and arduous three-year training course during which time students spend 12 months in various types of hospitals gaining practical experience. The training also includes the study of anatomy, physiology, psychology, psychiatry, general medicine and surgery.

Three important fields of Occupational Therapy which have become increasingly important are:—

(1) Industrial Therapy.

Industrial therapy is used with two main groups of patients: (a) long-term psychiatric patients; (b) mentally sub-normal patients. For both these groups a realistic work situation has proved to be of specific value.

Industrial Therapy was first developed in the 1950's, when it became obvious that such measures as opening the doors of what were previously locked wards, and generally improving the patients' standard of activities of daily living were very vital milestones in the history of psychiatric hospitals, but that some form of realistic work was also called for. Increased mechanisation in such departments as the hospital laundries, farms, and kitchens had, however, reduced the number of jobs available for patients.

Various industrial concerns were approached and a very careful assessment of any work offered took place. The therapists were very much aware of the danger of their patients being exploited to meet industrial pressures and demands, and it has been due to this constantly highly selective process that both therapist and industrialist have acquired a mutually advantageous knowledge of each other's work situation, available standards of achievement and output and the nature of the rehabilitative task in hand. If, after visiting the factory the therapist considers a certain job to be suitable for her patients a contract is drawn up and an agreement for the rate of payment is reached. Subsequently the patient will receive payment, usually given on an incentive basis.

It is important to remember that Industrial Therapy is only one part of the rehabilitative programme and that just as it has proved

successful as a point of contact for certain groups of patients, such well-established forms of therapy such as recreational, individual crafts and group projects are still considered to be of a sincere therapeutic value.

The advantages of Industrial Therapy can be summarised as follows:—

(1) Provides realistic work.

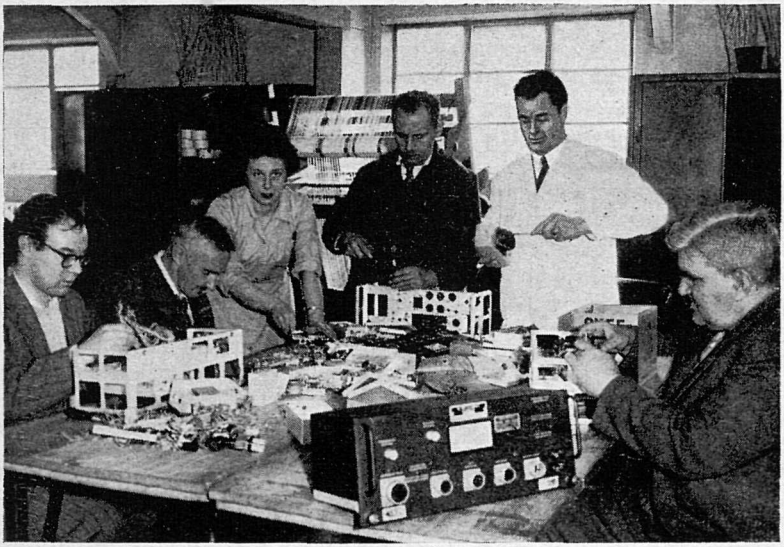
(2) Gives an opportunity to upgrade the long-term patients within the hospital community, and possibly to prepare some for work outside.

(3) Leads to better insight and understanding on the part of the Industrialist whose co-operation is ensured, both for the patient whilst he is in hospital and when he returns to the outside community.

(4) Provides a bridge for contact between therapist and patient.

(5) Communal group tasks lead to a good liaison between all members of the treatment team.

(6) The patients receive payment for their work.



Industrial unit dismantling transistors

(2) Day Hospitals.

Occupational Therapists can work in a Day Hospital where their aim of treatment is as follows:—

(a) To act as an intermediary between hospital and full-time employment within the community.

(b) To provide a sheltered workshop where a patient can be observed and receive treatment from a specialised staff without being admitted to a psychiatric hospital.

(3) Domiciliary Occupational Therapy.

There is an increasing tendency towards community care, and domiciliary Occupational Therapy is rapidly expanding in this field, not under the National Health Service but under the local authorities concerned. Occupational Therapy is usually administered from a domiciliary centre to which patients come daily. Home visits are made by the therapist to chronic or very handicapped patients. The therapist is aiming at rehabilitating the patient back to normal industrial working conditions, or to the support of the more chronic patients.

Occupational Therapy in Guy's Hospital

The Occupational Therapy department was started in the York Clinic in 1944 to treat psychiatric patients. An assistant Occupational Therapist was appointed in 1948 to treat patients on the Medical and Surgical wards. Students have been trained by the department since 1946. They come for three-month periods as part of their practical experience in learning how to treat psychiatric patients. Because of the situation of the department and the sometimes scant medical support it receives, the department treats mainly psychiatric patients. The Occupational Therapy programme therefore is geared primarily to their needs.

The unit consists of a main department with a carpentry section, a small kitchen unit and pottery room. There are two qualified staff and four students. As the department treats mainly short-term neurotic and psychotic patients our programme is an intensive and rehabilitatory one for patients who are or will be returning to a normal life. The programme of the department can be divided into two main sections.

(1) General Activities.

These are the traditional activities associated with Occupational Therapy. All types of craft work, carpentry, art, music and pottery are practised. It should always be remembered that it is not the end product that the patient produces that matters but how and why they produce it.

Patients are observed for:—

(a) Interest and motivation in the chosen activity.
(b) Ability and manual dexterity as distinct from intellectual ability.
(c) Concentration and span of concentration.
(d) Ability to work with or without supervision.
(e) Latent ability for retraining purposes.
(f) Ability to learn new techniques and to retain them—(very important with dementing patients).
(g) Ability to form "rapport" with, and the attitude to, the therapist and the students.

Pottery and art activities can be used as an emotional outlet for patients in their psychotic or neurotic drives and needs. For instance, an aggressive homicidal psychopathic patient can ventilate his feelings (to a certain extent) in a controlled situation such as the preparation of clay for pottery. This is a very fluid medium, the clay needing considerable banging and kneading before it can be used. Obsessional patients can be guided into less rigid and compelling rituals by helping them choose an activity that produces a quick result and that does not require a lot of fine detail. Schizophrenic patients can express their hallucinations and delusions through art work or pottery, but it must be remembered that this can be a two-edged sword.

(2) Group Activities.

These activities in this department are mainly:—

Play reading.
Musical appreciation.
Group Projects—Sales in the department; Freedom from Hunger; coffee mornings; Christmas decorations, and the Christmas party, etc.
Outings to places of interest.
Socials.
Patients' committee meetings.

As the name implies, these activities are organized in groups. Nearly all psychiatric patients have strong feelings of isolation and withdrawal from other people and have always found it difficult to form normal and mature relationships. These activities encourage patients to strengthen their rapport with other patients, the therapist and the students, and to take responsibility for the organization of the group which is always under the supervision of the therapist. The patients' social committee, which has a patient as chairman and as secretary, meets once a week and decides what the future plans will be for outings and social activities. These two group activities are of particular value with the following types of patients:—

(a) Patients with phobic fears of travelling and meeting people.
(b) For observing dementing patients and how they cope with money and travelling.
(c) To stimulate depressed patients to regain interest in outside and social activities.
(d) To observe how patients relate with people in a normal environment and in a controlled situation as an indication as to how they will cope with home situations.
(e) To enable an attention-seeking and demanding individual to control this need outside a supervised group.

Working in the kitchen unit is of particular value with patients who are:—

(a) Dementing and need assessing as to their future capabilities.
(b) Patients with phobic fears of dirt and contamination.
(c) Patients who feel they are, and probably are, inadequate in their rôles as housewives.

(d) Patients with physical handicaps, such as hemiplegia, polio and rheumatoid arthritis.

Musical appreciation and play-reading offer two very different ways for patients to express themselves in a creative fashion; this is of particular value with hysterical and attention-seeking individuals.

To and fro's are sent to the department from all wards of the hospital. The department can be of most use with patients who are going to be in hospital for more than just the odd week or two and who need more specific treatment than just occupying to overcome their boredom. The patients who benefit most from Occupational Therapy are those with a psychological overlay on top of their organic illness such as:—

(i) Orthopaedic patients.
(ii) Neurological patients.
(iii) Cardiovascular disorders.
(iv) Patients with cerebral tumour.
(v) Patients with carcinomatosis.
(vi) Rheumatoid arthritic patients.
(vii) Burned patients.

The department is often called upon to assess patients with disabilities that give them difficulties in ordinary tasks such as:—

(1) Dressing.
(2) Bathing.
(3) Eating.
(4) Cooking.
(5) General daily activities

These patients are assessed and taught how to adapt themselves to a more limited and handicapped existence by means of advice and self-help gadgets, for example, a hemiplegic housewife is taught how to cut her bread with one hand, the best way to lift a pot or pan and helped with gadgets for dressing with one hand such as using a button-hook or a stocking pull-on.

I would like to stress how limited the department is in its facilities and staff and how a great deal more could be done in this field with more acceptance and support from the medical staff of hospitals. There is a great deal of scope for Occupational Therapy in Guy's, provided that the purpose and aims of the department are recognised.

The Sections on Industrial Therapy and Day Hospitals were written by Helen Rose, M.A.O.T., S.R.O.T.

REFERENCES.

The Functions of Occupational Therapy. Officially adopted by the World Federation of Occupational Therapists. Copenhagen, Denmark, August, 1958.

The photograph of the industrial unit is published by courtesy of the Occupational Therapy Department of Napsbury Hospital and the Association of Occupational Therapists.

Blood Grouping in the Aeolian Isles

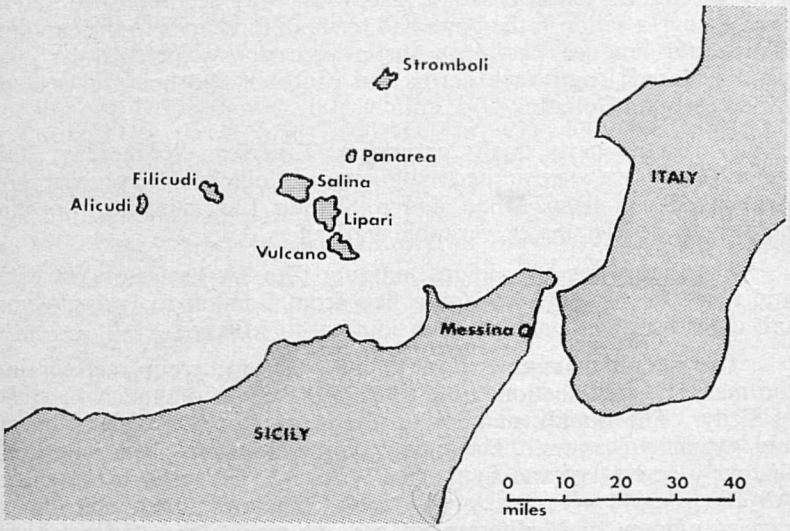
by D. TONG and T. RAYNES

"Interessanti ricerche scientifiche della spedizione antropologica inglese."

E'ospite (dal 10 luglio scorso) della città di Lipari la spedizione antropologica della Universita di Londra. Tale spedizione scientifica proveniente della Universita di Londra (Guy's Hospital Medical School) è guidata dal Professor Roger Warwick e da sua moglie dott. Carolyn Warwick ed è composta di 6 membri, Anthony Raynes, Frances Marks, Peter Peace, Marcus Pembrey, Clare Stannard and David Tong . . . *Gazzetta del sud. 2 agosto 1963.*

Thus began a report in a Sicilian newspaper last summer after six anatomy B.Sc. students had arrived on the island of Lipari to undertake an anthropological survey of its inhabitants.

The expedition had only been conceived about six months previously as a simple desire of five B.Sc. students to carry out field work in a European region not yet examined. The Aeolian Isles, which lie off the north-east coast of Sicily, were suggested by Professor Warwick, who has a personal interest in the ethnological history of these islands and had already visited them on holiday.



The Aeolian Isles

The final mobilization of such an expedition was the culmination of several months of organization under the tireless energies of Professor R. Warwick and Anthony Raynes. The venture was financed by a substantial grant from the Medical Research Council and further aid from the Wenner Gren Foundation of New York, Smith, Kline

and French Ltd., Bengers Ltd., Fisons Ltd., and the *Medical News*. Many firms and organizations had kindly contributed in the equipping of the expedition with both food and scientific supplies.

On the evening of Tuesday, 2nd of July, the party, composed of five newly-fledged B.Sc. graduates from Guy's and one from U.C., left London on the start of the 1,700-mile journey to the islands. The overland route through France, Switzerland and Italy was undertaken in a 15 cwt. Austin kindly loaned by the British Diabetic Association. This vehicle was to provide transport, sleeping and cooking accommodation, and later to act as a mobile laboratory on the islands.

The plan had been to embark from Naples on Sunday evening, July 7th, on one of the regular passenger steamers which ply between Naples, Sicily and the Aeolian Isles. Unfortunately, the steamship company had not been very efficient in making arrangements for us, with the result that after a long argument on the quay beneath a blazing Mediterranean sun, the captain of the boat decided that the vehicle was too large for his ship. The weary expedition was obliged to continue the arduous drive through Southern Italy to the small port of Villa San Giovanna to cross the Straits of Messina. Once in Sicily a further 20-mile drive brought the party to the port of Milazzo, where an exorbitant fare managed to persuade a local mariner to carry the vehicle on his small fishing smack to the island of Lipari. The fifteen-mile journey over a glassy sea was accomplished safely even though a sailor in the bows had to shout directions to the captain, who could not see past the Austin precariously perched on two planks placed lengthways across the width of the boat; a case of David carrying Goliath.

The initial party finally arrived on Lipari on Wednesday, 10th July. There we were united with our two official interpreters: Dr. Umberto Rossi from Milan and a Sicilian Law student from the University of Messina, a veritable Falstaff.

The group was later joined, on July 17th, by Professor Warwick and his wife, Dr. Warwick, who flew from London to Palermo and sailed to the islands after a train journey to Milazzo.

The islands themselves form a small volcanic group representing the maritime ramifications of the Mt. Etna chain off the N.E. coast of Sicily. The islands, numbering seven in all, consist of both active and extinct volcanoes. The most famous, Stromboli, the only continuously active volcano in the world, lies 30 miles from the coast. All the islands were rocky with high cliffs and mountains and a varying amount of Mediterranean and sub-tropical vegetation.

All our work was performed on the island of Lipari. The expedition was based in the town of Lipari, the small capital, which forms the administrative centre and the main centre of population of the islands. From the sea the town stands out as a white cluster of houses and other buildings against the reds and browns of the hills behind them. The town is divided into two parts by a small promontory, the

Acropolis, which bears the most notable historical buildings of the island (a cathedral and two ancient churches within a well-fortified castle.)

The total population of the islands is about 13,000 inhabitants, distributed mainly in the town of Lipari (5-6,000) and the nearby port of Canneto, consisting of some 3,000. The economy is considerably dependent on the export of pumice stone from the quarry on the Eastern headland of the island and on the increasing tourist trade.

Although all the islands produce a little of their own food from the now few vineyards, olive groves, orchards and farms, plus a small fishing industry, most of the food is imported from Sicily. Even the supply of drinking water is dependent on the regular visits of a tanker from Messina.

The present population is a declining one. The islands are not wealthy enough in resources to support a large population and since the mid-19th century there has been a considerable emigration of families to the mainland, Australia and the New World. However, their rising popularity as a tourist resort has tended at last to provide economic hope for the future and stability for the islands.

One of the reasons for this recent interest has stemmed from Lipari's widespread fame amongst archaeological circles as a unique site in the Mediterranean history. Since the 2nd World War, the valuable work of Professor Bernabo Breá of the Museo Archeologica Eoliana in Lipari has helped to trace the long and varied history of the islands back still further.

The island has been under continuous occupation since Neolithic times. There remains evidence of the Milazzese, a Neolithic civilization, the Doric Greeks (6th century B.C.), the Carthaginians (3rd century B.C.), the Romans (200 B.C. to A.D. 400), the Byzantines (5th—8th centuries A.D.), the Normans (10th century A.D.) Saracen Pirates (14th—15th century) and the Spaniards (16th century). The islands later became part of the Kingdom of Naples and Sicily until in 1870 they were united with the rest of Italy.

Thus we see that the Aeolian people are of mixed descent—representative of a complicated history of many races who have settled in the islands.

It was the object of our expedition to assist in the analysis of these racial origins by anthropological methods. The choice of blood grouping analysis was influenced by the data in this field which cover most of the world and are available for comparison, and also the relative ease with which the techniques can be carried out in the field. Moreover the use of human blood group frequencies in racial studies is one of the most reliable and significant indicators of a geographical population. In recent years the recognition of other variables in blood chemistry, enzyme deficiencies and other metabolic anomalies as manifestations of single gene mutations or complexes has opened up new potentials of analysing such a population from an anthropological and ethnological point of view. Such methods are not spectacular but present convenient single markers from which

the frequency of genes controlling them may be estimated. This is a more simple guide than the laborious comparison of all the physical characteristics of a race which represents a continuous spectrum of variation.

The aims of the study were primarily to investigate the frequency of the A. B. O. system of blood groups, the Rhesus (D) factor and M.N. system in Lipari. However, further insight into the genetic make-up of the population was proposed by anthropometric studies, the existence of secretors and non-secretors of A, B, and H salivary antigens, simple colour blindness tests, G-6. P.D. deficiency and preliminary tests for thalassaemia traits.

Most of the work was performed in the field.

The expedition was fortunate in being allowed the use of four rooms in the castle on the Acropolis by Professor Breá. A temporary laboratory was set up in one of the rooms, while the remaining space provided ample living accommodation. Further laboratory space was kindly provided by the local Medical Officer of Health, Dr. Zittelli.

After a feverish publicity campaign of leaflets, newspaper articles, radio reports and contacts with the Mayor, Bishop, Chief of Police and Director of the Hospital, the expedition embarked on an extensive "blood letting" exercise.

"At work"

Four hundred capillary blood samples were collected from the ear lobe, the wounds being inflicted with a small disposable lancet. In addition, enthusiastic volunteers were asked to give a further quantity of blood by venepuncture, for which a vacuum syringe was used.

The expedition vehicle was used as a mobile collection site, though most of the work was done in the open from a large table

under a canvas awning. Volunteers were first clerked with the aid of an interpreter on a standard questionnaire sheet. After collection of the blood each person was subjected to a number of anthropometric measurements, a quick test of visual accuity and a brief examination with the Ishihara colour blindness cards. Finally they were asked to salivate into a test tube, and for their pains were rewarded with a small gift (a calendar, with photographs of England, postcards or sachets of tea or coffee) and a simple, though very impressive, badge. The islanders were all extremely friendly and showed varying degrees of enthusiasm for our work. On the whole the greatest support came from the older members of the community and the mischievous young children.

In Lipari itself, the blood letting unit was set up in the main street—a thoroughfare barely wide enough to allow two vehicles to pass, which bore the splendid title of the "Corso Vittorio Emmanuele". Practically the whole townsfolk meandered, chatted, shopped or worked here at certain hours during the day. However, between the "siesta" hours of mid-day and 4 p.m., the street became completely deserted. The work in the street therefore was performed in the morning and in the evening. Further work was done in the nearby town of Canneto, largely during a local festival (where the expedition became merely an additional attraction alongside the various sideshows!) We also visited the small farming village of Quattropani, on the opposite side of the island, following Mass at the tiny church, one Sunday. A simple foray was made through the choking dust of the local pumice works to collect samples from the workers.

All the blood grouping was performed in the castle laboratory during the day, using a simple field technique and chiefly dried antisera. The results were given to the people the following day or forwarded to the local medical practitioners, thus fulfilling a useful, though somewhat remote service to the community. About 200 venepuncture samples were collected and packed in large vacuum flasks and flown back to London via Sicily for more extensive investigations by the Blood Group Reference Laboratory (under Dr. A. E. Mourant) and to Dr. P. E. Lehmann, then of St. Bartholomew's Hospital, for assessment of abnormal haemoglobins.

The group finally left the islands on 2nd August with not only valuable scientific data, but also many cherished memories of a charming people and unforgettable scenery.

It is hoped that we will be able to publish papers in the near future in collaboration with Dr. Mourant, Dr. Lehmann and others. The results themselves, it is hoped, will pay tribute to the invaluable aid from the Medical Research Council, the Directors of the Wenner Gren Foundation of New York and the many firms, individuals and others who helped us to realise this venture. If the results alone are able to complete the total geographical picture of the frequency and distribution of human blood groups of the Italian mainland and the islands then it will be some recompense for the weeks of toil by Professor Warwick, his wife Dr. Warwick, Tony Raynes and the other field workers, especially if they reveal the predicted racial heterogeneity of these off-shore islands.

The Rôle of the Dental Auxiliary in Dentistry

The school for the training of Dental Auxiliaries opened at New Cross hospital, three years ago. The Director is Mr. J. V. Bungay, an old Guy's man who was previously the Chief Dental Officer for Middlesex.

The school is at present operating as an experiment under the control of the General Dental Council. Its purpose is to train students, during two years, to do several of the routine tasks in dentistry. Until the experiment is over in another two years, and the results examined by Parliament, the future is uncertain.

To date there are only women students and they treat only children during their training and upon qualification. It is hoped that the auxiliary will solve the problem of the school dental service. The qualified auxiliary will always work under the written directions and strict supervision of a dentist. Treatment will be restricted to the deciduous and permanent teeth of school children. This will include the preparation and filling of cavities with all usual materials, the extraction of deciduous teeth, administration of infiltration anaesthesia, scaling and polishing, radiography, and instructions in oral hygiene. A dental auxiliary cannot give a block or general anaesthetic, nor can she perform orthodontic, prosthetic or root canal treatments.

It is not expected that the auxiliaries will work in general practice, but rather in hospitals, health clinics and the school dental service.

The syllabus is based on that used on a similar scheme in New Zealand. During the two years of training there are courses in anatomy, physiology, dental anatomy, dental bacteriology, pathology, sterilisation techniques and child management. In the first year, which is pre-clinical, the practical side consists of tooth caring, work on the phantom head and poster designs for dental education. In the second year, students treat the local school children.

There are sixty places in each year, with a minimum requirement of 4 "O" levels for entrance. Students have been selected from all over the U.K. to prevent the experiment being biased. There were over a thousand applicants in the first year of the scheme.

There are searching internal exams. throughout the course, while external examiners mark the final paper. The failure and wastage rate is, so far, only $1\frac{1}{2}$ per cent.

The school finds jobs for its students while allowing them some choice. The director continues to receive progress reports about his graduates from their superiors. Only thus, can their usefulness be assessed.

The school is a modern building, rather tucked away in the grounds of New Cross hospital. The school is a show-place for visitors, and one feels at times as if one were at a zoo, the students

being the animals. The clinical students work in cubicles, two students to each cubicle. They can design and arrange posters on the walls of the cubicle as they wish. Each cubicle has its own steriliser, dental chair and engine. Instruments are loaned by the school. There are six dental surgeons and five tutors who are dental nurses. They all work full time.

The centre serves about 10,000 children. The children are brought in by coach from their schools and each child always sees the same student. Last year students did about 16,000 fillings and 500 extractions. A survey carried out among the local population showed that the majority preferred this form of treatment to any other.

The dental auxiliary may solve the problem of the school dental service. Their handling of the fractious child is splendid, and their craftsmanship of a high order.

It should be said that there is considerable opposition to the dental auxiliary among some of the profession. They argue that diluting the profession with "semi-skilled" labour will lower the standards of craftsmanship and, more important, integrity. Again they consider that children's dentistry is a speciality within dentistry and is not the province of the auxiliary.

It must be remembered that New Cross is an experiment, and it is only by experiment that new ideas in dentistry can be tried, and then be either discarded or adopted.

I am grateful to Mr. J. V. Bungay and Mr. A. H. R. Rowe for their help and criticism.

PETER SIMS.

Lord Cunliffe

The Matron writes:

May I, through the courtesy of your columns, add a comment to the tributes which have been written already?

Perhaps I may refer to a particularly valuable aspect of Lord Cunliffe's influence which has not, as yet, been mentioned. A number of people join a community in which they find great interest, but after a great number of years, very few are able to remember and appreciate in minute detail the difficulties of a beginner in that same environment—and the anticipated problems with which he may be confronted.

Lord Cunliffe was acutely aware of these things: he was a wonderful teacher, and a person who gave with humour, wisdom and encouragement, his sympathetic guidance in all things.

No Treasurer can have cared more for the Nursing Staff than Lord Cunliffe did for the Sisters and Nurses at Guy's. Those who cared for him during his illness were constantly intrigued by his detailed knowledge. To quote from one of these Nurses: "He seemed to love to chat with each one of us: he was so patient—and always—so completely lacking in fuss."

CORRESPONDENCE

Nurses and Students?

SIR, It appears that under the present constitution of the Club's Union, student nurses may not join in its activities. We therefore suggest that independent societies could be formed which would be open both to student doctors and student nurses and would enable a full attendance at a mutually convenient time.

Would any students who are interested in supporting such a project, or better still, in coming forward to help to form a committee to work out how this might be achieved, please contact the undersigned. This may be the only way in which any cultural rapport between the two groups may be achieved.

Yours, etc.,

V. JONES
S. CLAY
M. HUTTON
E. HOAD
C. HEYWORTH
M. STEWART
M. KNIGHT

The Nurses' Home,
Guy's Hospital.

SIR, As members of the Students' Club we naturally felt some concern at the tone and content of the letter that appeared in your issue of December 28th, in reply to the proposals of the S.N.A.

It would appear that the Council of the Students' Club are concerned only with the welfare and well-being of the Medical and Dental students, and consider themselves under no obligation to the hospital as a whole.

We sincerely hope that the Council of the Students' Club will reconsider their decision, and if they still feel this impossible under the present constitution, then could not the constitution be changed.

Yours, etc.,

P. SHERWIN
J. M. G. HUNT
P. LONGHURST
S. OAKENFULL

Guy's Hospital Clubs' Union Rose Ball

SIR, This year the Ball will be held on the eve of Thursday, 6th February, at the Lancaster Room, Savoy Hotel. The Trinidad Tropicana Steel Band, with Laurie Payne and his Orchestra, will provide variety in music for dancing and listening. To avoid disappointment your readers are advised to obtain their tickets and table reservations as early as possible.

Yours, etc.,

Q. JAMIL,
Hon. Ball Secretary.

NOTICE

Pupils' Physical Society

Clinical Meeting with Abernethian Society of Bart's at Guy's

A clinical meeting of the Pupils' Physical Society is to be held in the Demonstration Room on the second floor of New Guy's House, on Thursday, January 30th, at 5.30 p.m. Patients with interesting physical signs for examination will be present and there will be a pictorial quiz with a book-token prize for the winner. The meeting will be attended by guests from Barts' Hospital Abernethian Society. It will continue after dinner in the Quiet Games Room of the Students' Club, when a team from each hospital will present the other with a case-history for diagnosis.

Clinical students from all three years will be welcome.

REVIEWS

THE NEWLY BORN INFANT.

by A. Bogdan. Tutorial System Publications' Paediatric Series. 2nd Edition. 1963. Pp. 42. *Price* 5*s*.

GROWTH AND DEVELOPMENT IN CHILDHOOD.

by A. Bogdan. Tutorial System Publications' Paediatric Series. 1963. Pp. 21. *Price* 3*s*. 6*d*.

These are not textbooks but "prepared notes to guide the student for further study", initially printed for the author's personal students.

The text is minimal and in note form, but not at the expense of clarity. Only the left-hand page is printed on, providing the trunk and main branches of the tree; the right-hand page is left empty for personal notes, the foliage which should be provided by the student from personal observation and experience. Thus it can become an excellent aid to revision.

Both books start with general definitions. In "The Newly Born Infant", the normal neonate, its behaviour, assessment, care and feeding are first dealt with. Then the author deals with the danger signals in the newborn and their significance. Neonatal asphyxia, cyanotic attacks, hyaline membrane (aetiology, assessment and management) follow. Prematurity occupies a large section of the book, followed by the section on birth injuries, intracranial haemorrhage, convulsions, jaundice, haemolytic and haemorrhagic disease of the new born ending with the section on infection.

The individuality of the child and thus the variation in growth and development as a whole is stressed at the beginning of "Growth and Development in Childhood". The factors influencing normal growth and development follow, with the aetiology of abnormal development. Normal physical growth and development are considered from the mental, motor, speech, social, sexual and emotional aspects. Retardation and its early recognition constitutes the last section of the book. A table relating height, weight and age in boys and girls is at the end.

Both books should be very useful to students and nurses.

A. NICOLAIDES.

THE SCIENTIFIC BASIS OF MEDICINE: ANNUAL REVIEWS.

The Athlone Press, Univ. of London. 1963. Pp. 348. *Price* 40s.

This is the third in the new series of annual volumes based on lectures organised by the British Postgraduate Medical Federation. The list of contents shows, as usual, a wide range of topics. In this particular volume an attempt has been made to present some anatomical reviews, so as to counter to some extent the tendency for the biochemists to take up a disproportionate amount of space. Thus we have reviews on " Functional aspects of the vascularization of tissues", "The pituitary gland and its blood supply", " Anorectal anatomy", together with the rather more esoteric "Aspects of facial and nasal development", and " Aspects of the anatomy of the pia mater and choroid plexuses". The biochemists are still well represented, for example, in " Absorption from the small intestine", " Magnesium metabolism " and " Parathyroid function".

As always, the general layout of the book is excellent, as are the graphs and line diagrams. There are many photographs—indeed, an incredible number, considering the price—including a collection of fascinating electron photomicrographs in Dr. Friedmann's interesting review of " Electron microscopy in the pathology of ear, nose and throat".

Each review, with its comprehensive list of references, is an ideal introduction to that particular field of medical research. The book as a whole is to be recommended to both pre- and post-graduate students, to practising clinicians, and indeed to anyone interested in maintaining contact with the unseen world behind the wards and surgeries from which come new ideas, new insights, and occasionally new cures.

C. I. ROBERTS.

PHYSIOLOGY.

Edited by Ewalf E. Selkurt. Little, Brown and Co., Boston, J. & A. Churchill, London. 1963. Pp. 720. *Price* 55*s*.

This new American text of physiology has several unusual features. It is a paper-back written by eight teaching members of one university department and has dispensed with many of the trimmings with which most texts of physiology are amply provided.

As is claimed in the foreword complementary matter from other disciplines, particularly biochemistry and histology has been kept to a minimum. What is more striking, however, is the exclusion from the text of many of the out-dated hypotheses and experimental descriptions which often provide a sound basis for confusion in the overworked medical student. This omission makes for refreshing reading and the overall impression of this book was that it provided a good working introduction to the physiology of the 1960's.

Particularly well treated in the book are the sections dealing with the physical principles underlying physiological measurements. The lucid expositions will enable many students to follow more easily the complex methods found in the investigation of cardiac, respiratory and renal disease.

The chapter on the Regulation of Visceral Function by the Autonomic Nervous System contains a good introduction to the theory of control systems and elementary cybernetics, a welcome introduction when so much of neurophysiology is being influenced by these disciplines.

Perhaps the most outstanding feature of the book is the high standard of the diagrams. Many of these have been taken from other works, and the authors have selected with an obvious knowledge of student's requirements. The figures have been excellently re-drawn and add enormously to the value of the text.

At its British price of fifty-five shillings, this book is a good buy and can be thoroughly recommended to pre-clinical students. With a little care they should be able to make the book last their clinical years.

G. PRESTON.

NOTICES

Symposium on Chronic Lung Disease

Under the auspices of the Pupil's Physical Society, on Thursday, February 13th at 5.0 p.m., in the Demonstration Room, second floor, New Guy's House, a physician, a pathologist, a radiologist and an anaeshetist concerned with respiratory function tests (Drs. Scott, Missen, Roebuck and Potts) with a student chairman, will discuss chronic lung disease. It is hoped to illuminate the subject for these four viewpoints in turn and then to stimulate a general discussion. All clinical students are welcome. The meeting will end before 7 p.m.

Guy's Science Club

The next meeting of the Science Club will be held in the Medical School Committee Room (New Pathology Block) on Wednesday, 12th February, at 4.45 p.m., when Dr. A. Bowyer, of the Dermatological Department, will speak on "Electron Microscopy and Dermatology".

The Chair will be taken by Dr. E. J. Moynahan.

Tea will be served in the Staff Common Room at 4.30 p.m., and a cordial invitation is extended to all members of the Teaching and Research Staffs of the Hospital and Schools.

MARJORIE J. HILL,
Honorary Secretary.

Photographic Society

There will be a meeting of the Society on Thursday, 30th January, 1964, at 5.30 p.m. in the Clinical Demonstration Room, New Guy's House. One of the Kodak series of Lectures will be shown, entitled, "How to Make Better Pictures", by H. F. Park, F.R.P.S. This includes some very interesting slides and useful hints on taking photographs.

We shall also discuss a new project which is taking place now and we hope will stretch into the future. Please come and give your support.

J. S. GREGSON,
Hon. Secretary

SPORT

ASSOCIATION FOOTBALL

In the quarter-final of the London University Cup, the club romped to a convincing win by seven goals to one against Northern Polytechnic. This highly satisfactory performance, again the result of excellent combined team work, should put new heart into the Club in its bid to be the first Guy's Soccer team to win honours for 12 years. This is quite remarkable, when one considers the talent that has been available during that time but this year's side is quite capable of righting that situation.

When the quality of the football being played is considered, it is surprising at the lack of support for the Club. Making bids now for Cup honours in both University and United Hospital competitions, the club deserves spectators besides players from teams not otherwise engaged. It would be greatly appreciated if more onlookers would appear and cheer the side on to rewards they are quite capable of achieving.

RUGBY FOOTBALL

Hard frost last Saturday resulted in the first cancellation of the season with the home match against Taunton suffering. This was regrettable for three reasons: Taunton beat St. Bartholomew's by 12—0 the previous week and a comparison of performances would have been of interest; now only two matches remain before the Cup for the team to complete its pre-tie organisation; and the opportunity of exacting revenge over a West-country club for defeat by the Albion at Plymouth the previous week was denied.

Against Plymouth, the promise of a sound first-half performance was not maintained in the second, and the home team had a deserved if slightly flattering win.

Readers are reminded that the opening game of the Cup campaign is against Barts. on Wednesday, Feb. 5th, at Richmond. It is hoped that the support so successfully evident in the Cup win three years ago, and so sadly lacking since, will be repeated in the bid by this years competent and entertaining team to uphold the deserved reputation of the Hospital in this competition.

CROSS COUNTRY

This season, for the first time for many years, the club entered a team in the University London Cross-Country Championship held over a four-mile course at Wimbledon Common on December. The team consisted of J. Coole (35th), A. Lakin (45th), J. Wheeler (48th), P. Witting (61st), E. Bowen-Jones (78th), and did well to finish in 8th position in an event open to all colleges in the University.

The third League Match of the season was held at Mitcham and Guy's individual places were as follows:

J. Wheeler (28th), A. Lakin (38th), R. Wilson (58th), E. Bowen-Jones (60th), A. Brown (64th).

The overall team position in the First Division was 8th.

Four members of the club (A. Lakin, R. Wilson, P. Witting and D. Cooper) competed in the Borough College Osterley Park relay. Despite arriving over 6 minutes late for the start, the team finished strongly in the equivalent of 15th position on time—beating St. Bartholomew's Hospital by one place.

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BLUES COMMITTEE

The following Blues were awarded by a recent meeting of the Committee:

Cricket Club

G. Hambledon .. .. *Full Blue*
M. Walter .. .. .. *Full Blue*
S. C. Davoodbuoy .. *Half Blue*

Shooting Club

B. D. Glynn .. .. *Full Blue*

Athletics Club

A. Winskill .. .. *Full Blue*
P. M. J. Domaigne .. *Half Blue*

Cross-Country Club

P. K. Witting .. .. *Half Blue*

Golf Club

E. S. Baird .. .. *Full Blue*
M. P. D. Adams .. *Half Blue*
M. J. Brummitt .. .. *Half Blue*

Fencing Club

No Awards

Lawn Tennis

P. J. R. Boyd .. .. *Full Blue*

Swimming and Water Polo Club

R. Jones .. .. .. *Half Blue*

No recommendation was made for the Sailing Club.

Reports and Results

RUGBY FOOTBALL

GUY'S v. PLYMOUTH ALBION

At Plymouth. 11th January, 1964.

Result: lost 0—16

The cup games being only three matches away, this game and its result must be disappointing, but encouragement may be drawn from the forwards unremitting efforts against a heavier and experienced Plymouth Albion pack. The outsides in attack and defence were balanced with the opposition, but unfortunately the last twenty minutes proved the turning point of the game; the weight and power of the Albion pack, aided by some more determined running from their threequarters and lapses in the Guy's defence, saw thirteen points added to the opposition's total.

A firm, dry surface and cold wind augured well for handling the ball and quick loose scrummaging, which in the opening moments of the game were shown by the Guy's forwards. From the kick-off the Guy's forwards, following the kick, heeled from the ensuing loose scrum in fine style. Unfortunately, however, a dropped pass lost the advantage and Guy's were desperately defending their line. However, the effective loose scrummaging and relieving kicks from Edgar and Myall prevented a score in the early moments. Soon the Albion pack were being contained in the tight and outplayed in the loose and Peace and Kingdom were outstanding in the lineouts. Unfortunately, these advantages were not capitalised by penetrating play from the outsides, and in fact Plymouth were first to score from a drop kick following a scrum under the Guy's posts.

For the remainder of the first half Guy's showed the most initiative and were on the attack; Wright making a fine break through the centre, but again the final pass went astray. Edgar narrowly missed two penalty attempts and nearly completed an individual effort to touch down his kick into the right corner.

Only three points down, Guy's started the second half in encouraging style, but the concentrated effort of the Plymouth pack began paying dividends. The Guy's outsides began receiving the ball from a retreating pack, and the handling in the outsides lapsed on many occasions. The English trialist, Southern, wrested the lineout initative away in exemplary style, blocking the throw in from the front of the line, and it was he who gathered a cross-kick following a good Guy's movement on the right side near his own line, and throwing off tackle after tackle, made his side's first try. This turning point, twenty minutes from the end, left Guy's 0—8 down and the Albion pack thereafter never relented. Two further scores resulted from more positive running by the Plymouth Albion threequarters and less positive tackling by their opponents. Guy's thus finished the game sixteen points in arrears, but from the game as a whole, they did not deserve such a margin of defeat

TIM HUINS.

Team: R. W. T. Myall, R. Kerner, A. Allan, C. J. Wright, D. A. Biggs, J. A. Edgar, H. W. MacGregor, J. Davies, E. Price, R. Stansfield, P. K. Peace, A. Kingdom, R. Brown, D. Hendrick, I. A. Baker (Capt.).

HOCKEY

GUY'S v. OLD BECCEHAMIANS

Away. 11th January, 1964.

Result: draw 1—1

Playing their first game after the Christmas break, the Guy's team were lucky to get away with a draw against a strong Old Beccehamian side that had only lost one game this season. Guy's, with three of their regular players missing, never settled down to play a constructive game and the opposition were playing much the faster and better hockey. They went near to scoring on several occasions and only Hirst in goal kept the Guy's team out of trouble. The forwards never looked dangerous and the defence were too often caught in possession of the ball.

However, the second half started with neither team having scored The Guy's defence was still under pressure when, completely against the run of the play, Guy's scored. Brooks took a quick free hit near the centre spot, finding Strickland out on the right. He drew their defence towards him before sending an accurate cross pass to Bennett on the edge of the circle. Bennett, with only the goalkeeper to beat, did so with a well-placed flick shot.

The Old Beccehamians re-doubled their efforts and finally equalised in the closing stages of the game with a hard shot which went in off Hirst's pads.

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GUY'S v. OLD CREIGHTONIANS

At H.O.P. 18th January, 1964.

Result: won 3—1

Played on a cold but sunny afternoon, the Guy's team soon settled down to play some constructive hockey. The defence, back at full strength again, played well and Hirst, in goal, never had very much to do for a change.

The forwards moved the ball around well but lacked that all important thrust and control in the circle which leads to goals. As it was, although the Guy's team were by far the better side, they seemed unable to prove it by scoring goals. However, they did eventually go into a deserved lead when Loader netted with a well-taken short corner.

In the second half the standard of play deteriorated and it looked as though the game would end in another draw when Old Creightonians equalised after being allowed to have four attempts at goal following a short corner. It was a relief, therefore, when Carruthers went through on his own, rounded their advancing goalkeeper and hit the ball into the empty net from an acute angle.

Guy's further increased their lead when, following a short corner, Loader beat the onrushing defenders and found himself a few yards out with only the goalkeeper and backs standing on the line looking at him. His shot went into the goal after rebounding off the goalkeeper's pads

The Guy's team have now not lost a match since the beginning of November last year and it is hoped that they will keep this record intact in their all important Cup games to be played soon.

DAVID LOADER.

ASSOCIATION FOOTBALL

GUY'S v. NORTHERN POLYTECHNIC

At H.O.P 18th January, 1963.

Result: won 7—1

Guy's entertained Northern Polytechnic on Saturday, January 11th, at H.O.P. in the quarter final of the University Cup. The pitch was frozen initially, making good soccer impossible; however, it thawed during the game, making pivoting easier.

The opening spell was all Guy's and they took the lead after twenty minutes. The centre-half, W. Davies, was sent up for the corner and he duly nodded home a rebound from the visitors keeper. Almost from the resulting kick-off Cutler latched on to a through ball to make it 2—0. Following this the Hospital slacked and allowed Northern to come into the game. The result of this was a fine goal by the Polytechnic bringing the difference between the sides to one goal. This has happened before with the Guy's team—it must not occur again or else disaster will surely follow. The remainder of the half was evenly fought.

The second half saw the Hospital well on top and over-running their opponent's defence. They added five more goals through Cutler, Palmer, Shepherd, Atkins and an own goal to make the final score 7—1. Credit must be given to Parry, in goal, for a very steady, competent display; to Sheridan, having one of his best matches of the season: to Palmer, for his industry; and the insides, Elias and Powell-Jackson, both playing hard for the full ninety minutes. In addition, W. Davies hardly put a foot wrong throughout the match.

The eleven are now in the semi-final of this competition and the next round will see them playing one of the top clubs in University football. The tie is to be played on a neutral ground on February 8th.

PETER DAVIES.

GUY'S v. ST. MARY'S COLLEGE

Result: won 6—2

In their first match of the New Year, Guy's played promisingly well to beat St. Mary's College by six goals to two. Mary's played well for the first ten minutes and looked to be on top. However, Guy's soon settled down and Elias and Powell-Jackson began to dictate the play. Cutler opened his account in characteristic fashion, moving quickly on to a through ball from right-half. Davies, slipping the ball past the goalkeeper. A further two goals from Cutler and one from Elias put Guy's four up at half-time.

In the second half, Guy's slackened off and allowed St. Mary's to get back into the game but yet again Cutler struck, and an own goal shortly afterwards put the issue beyond doubt. The Guy's defence then lost all sense of urgency and two unnecessary mistakes gave Mary's two consolation goals.

This match was a useful warm-up for the coming Cup games, with W. Davies outstanding at centre-half and J. Cutler snapping up four goals from almost as many chances.

ALAN ATKINS.

Team: L. G. Parry, P. Sheridan, J. Cochrane, P. Davies (Capt.), W. W. Davies, A. Palmer, R. Shepherd, E. Elias, J. Cutler, J. Powell-Jackson, A. Atkins.

WATER POLO

After many years of playing in the Hospitals' League, it was decided to enter the University League. This is a considerable step for several of our players, who must now come to terms with the conditions of the U.L.U. pool, which is far larger than that at St. Mary's where we used to play. The team must now have seven players, when five were sufficient for U.H., and this calls for more careful thinking on the part of each player, in his efforts to appreciate the game. However, having won the U.H. League it was felt that we should take the challenge.

GUY'S v. QUEEN MARY COLLEGE

At U.L.U. 14th January, 1964.

Result: won 3—1

In this first game of the league, Guy's were one goal down rather abruptly, due to poor marking. This lesson learned, the team used its greater speed and put Jones and Valentine through to score two quick goals. After half-time Valentine made victory safe with a well-placed long shot. The ability of the team to adapt themselves to the large pool showed promise for the future.

Team: J. Siegle (goal), D. Barnes (Capt.), R. Jones (1), K. McGlynn, D. Bartlett, B. Valentine (2), J. Holland.

GUY'S v. UNIVERSITY COLLEGE

At U.L.U. 16th January, 1964.

Result: drawn 1—1

Guy's, defending the shallow end in the first half, appeared to be the stronger team and were unlucky not to score more than the one goal by McGlynn. In the second half Guy's were again unlucky, but one noticed some rather frantic efforts in defence also, which must be rectified if the team is to flourish. In the closing seconds, having drawn level in the score, U.C. were awarded a penalty for over enthusiasm on the part of a Guy's back. J. Siegle in goal made a save to be proud of and so the points were shared.

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J. K. Crafts	J. A. Mander
M. H. Dods	R. H. J. Milliner
S. W. Finch	M. W. S. Newlands
A. A. Forbes	I. J. Pitman
D. C. Hartley	Frances M. Pratt
H. R. Hirsh	C. H. Rawlinson
M. J. H. Jones	N. A. Tilling
R. W. Jones	Diana J. Wagstaff

Special Anatomy and Physiology

P. T. Blenkinsop	J. G. Kingsbury
J. J. Claydon	C. H. W. Lee
Elizabeth A. Cocus	J. A. Mander
J. K. Crafts	R. H. J. Milliner
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P. T. Blenkinsopp	M. C. R. McMahon
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Elizabeth A. Cocks	J. H. J. Milliner
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Penelope J. Heather	R. A. Stares
H. R. Hirsh	N. A. Tilling
J. M. Hudson	A. S. Usiskin
R W. Jones	Diana J. Wagstaff
J. G. Kingsbury	

3rd B.D.S., November, 1963

Honours

A. J. Bishop (Distinguished in Surgery).
D. J. Boddy (Distinguished in Surgery and Orthodontics)
G. A. N. Edgar (Distinguished in Medicine).
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T. L. Harrison	R. F. Stevens
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Editors *T. C. Davis*
B. H. Hicks

Sports Correspondent *E. Tiller*

Guy's Hospital, London

PASSIM

We were extremely sorry to hear of the recent death of Mr. T. B. Layton. There can be few at Guy's who will forget his figure, voice or sentiments, his very, very wide range of interests and his absorption in his students' curriculum and ideas. We saw in him the ideal of the physician as a whole man more than just a therapist; he expected no less from his students. From his life none can fail to gain both animus and humility. We offer our condolences to his family; he will be missed greatly at Guy's.

Who's Who

"To wear a tab denoting position, profession or identity is a further attempt to regiment, perhaps stifle but certainly Americanize any individual, or individualistic trait, within society." This, and other rather similar and naïve statements have greeted the arrival of small black badges with the owner's name upon them, which are now being worn by students and staff alike in the Dental School. The use of identification badges in American hospitals is widespread and succeeds in its motive of establishing a more immediate contact between the teacher and the taught and the physician and the patient. To decry this aim is absurd. Medical education and administration must function within an organized society and any supposed means which will bring their objective and subjective faces together, even on this superficial level, must justify its trial. It is safe to assume that student opposition to the scheme in English schools must stem from one of three sources, firstly that they themselves had not been consulted, and secondly that the system was to apply to students alone. If students then wish to object they have every right to discuss the matter amongst themselves and with the Staff before final decisions are taken. This principle was certainly upheld in this instance and if the students did not have proper forewarning then the student body consulted must be held culpable. There has been no distinction at Guy's between Consultant, Registrar or Student and it will be interesting to see in a few months' time how the teaching Staff feel it has helped in their dealings with students, and both in their relationship with patients. This leaves one more objection. "I just don't like walking around the Dental School with my name emblazened for all to see." Why not?

Redbrick or Yellow

An air of mild surprise was the response to some prominence of Guy's in a report on medical school in *Sennet*, the London University newspaper. Not that the report told us much about ourselves, except for a tone of "they're not really such a bad lot of chaps" which (however accurate!) was a little too patronising for some palates. But any reminder of University links tends to mildly surprise Guy's,

one suspects, particularly when grouped with eleven other medical schools.

Even the authorities are quite determined that we shall never be "redbrick", and *Daily Telegraph* readers will already know of careful measures to render virginal yellow brickwork the dusky shade of Southwark's smoke. In fairness to the shaders, any attempt to clean the remainder of the wall would apparently have revealed a history of patching and repairs that is now mercifully concealed. . . So that's the drawback of smokeless zones!

GUY'S DIARY

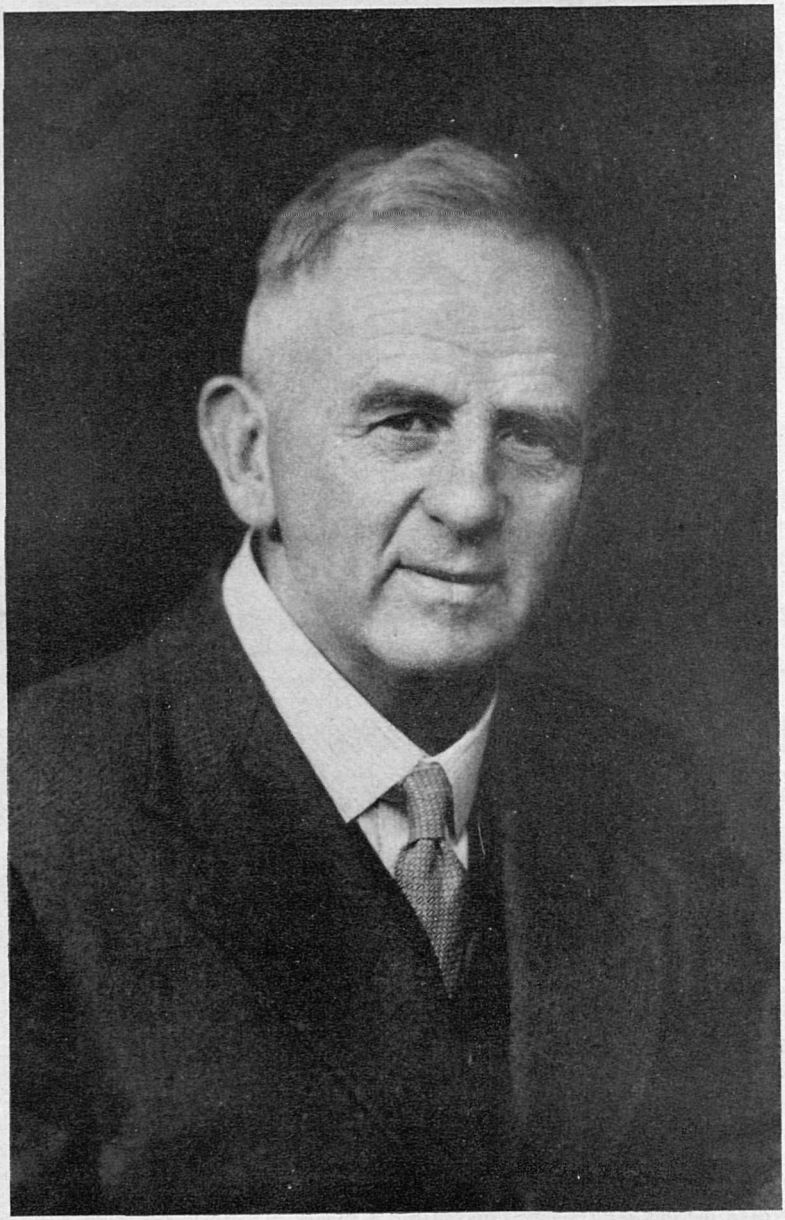
FEBRUARY

EXHIBITION.			*Varicose Veins.*
10th	M.	1.00	Dr. MOYNAHAN. The History of Medicine. *The Story of Penicillin.*
10th	M.	4.30	Mr. N. VEALL. Applied Physiology Lecture. *The Use of Isotope Techniques in Circulatory Physiology.*
11th	T.	1.00	Dr. MOYNAHAN. The History of Medicine. *The Story of Cortisone.*
14th	F.	1.00	Dr. TROUNCE. Clinical Lecture. *Renal Osteodystrophy.*
17th	M.	4.30	Dr. D. C. DEUCHAR. Applied Physiology Lecture. *The Circulation with Anatomical Heart Disease.*
18th	T.	1.00	Professor HUNT. Clinical Lecture. *A Clinical Trial.*
18th	T.	5.00	Films of Medical and Scientific Interest. Physiology Theatre. No. 1. *"Time Lapse."*
20th	Th.	1.00	Dr. MOYNAHAN. History of Medicine. *The History of Blood-transfusion.*
20th	Th.	5.00	Mr. P. SCHURR. Neurosurgical Round. Clinical Theatre.
21st	F.	1.00	Mr. LAWRIE. Clinical Lecture, *Acute Peritonitis.*
22nd	S.	10.00	Clinico-Pathological Meeting. Clinical Theatre.
24th	M.	1.00	Dr. MOYNAHAN. The History of Medicine. *Allergy through the ages.*
24th	M.	4.30	Dr. D. C. DEUCHAR. Applied Physiology Lecture. *The Physiological Effect of Exercise.*

NOTICE

The Wills' Library

The Wills' Library Committee have decided that the scheme of library deposits which has fallen into disuse shall be wound up. Therefore any person who wishes to claim his deposit should send his receipt to the Wills' Library. Deposits not claimed by March 15th, 1964, will be devoted to a special library project.



T. B. Layton

D.S.O., M.S., F.R.C.S.

NO LONGER will Guy's hear the voice or the watery whistle that heralded the approach of that great character who was known to all as Tubby. No one had a more powerful voice or used it more often than he did. I still remember being summoned by a shout, as Tubby appeared at the Out-patient doorway and saw me at the top of the steps into the Medical School—before the building of Nuffield House. That summons and the conversation which followed it were typical of him. It was the interest of a member of the Staff in one of his recently-qualified dressers, on whose career it had a deciding influence. Little did I then expect to become his House Surgeon, his Registrar and his colleague.

He had a distinguished student career which culminated in his gaining a gold medal in the M.S. Examination. By his own standards such a career destined him for the Consultant Staff and it was to the newly-formed amalgamation of Ear and Throat Departments that W. M. Mollison and he were appointed Surgeons-in-Charge in 1912.

During the next 25 years a succession of Guy's men had the good fortune to learn from these two remarkable teachers, while a chosen few became their assistants and were in turn appointed to Ear and Throat Departments in the provinces and at several other teaching hospitals in London.

Layton was a great teacher of principles both in Medicine and of life. His dressers learned much that was unrelated to the speciality —if they listened! He could give an excellent demonstration of any operation he was doing but, as he himself admitted, he was not happy in the teaching of operative surgery.

For many years he was an enthusiast for local anaesthesia in nose and throat surgery. Realising that noise in the theatre or its precincts was especially disturbing to his patients he had a special theatre built for this local anaesthetic surgery in the basement of Guy's House and incorporated in its design and equipment many anti-noise ideas. The one noise he sometimes overlooked was the loudness of his own voice!

He always had a great interest in his students and in their subsequent careers. He was Johnsonian in his regard for the English language—demanding an accuracy and precision of description, abhorring all colloquialism and having an anathema for slang.

His interests outside Guy's were varied but they were very much those of a Londoner. He was a lover of and an authority on Dickens, and wrote about Dickens' medical students. He was a member of the Society of Apothecaries, being on the Court of Assistants for over 30 years. He served the office of Master in 1941 and was proud of the fact that his grandfather had similarly served in 1912.

The four years of the First World War took him away from Guy's. For almost the whole of this time he was in command of a Territorial Field Ambulance in France, Salonika and Palestine. It was, perhaps, a record that he was in charge of the same Unit during

the whole of its existence. He liked to think that he was the first British Officer to enter Jerusalem during Allenby's historic campaign. His fascinating account of this episode is a gem hidden in Tales of a Field Ambulance which was published for private circulation. For his services he was twice mentioned in dispatches and awarded the D.S.O.

All his life he was a great reader among his own very extensive collection of books. He wrote many articles on diseases of the ear, nose and throat and throughout was an advocate for conservatism in this branch of Surgery.

But it was as a talker that Tubby will be remembered. He was a slow talker and latterly he was out of his time—life became too hurried for him—he should have lived and talked with Samuel Johnson.

NOTICES

Guy's Hospital Students' Club

The attention of members of the Students' Club is drawn to the notices which have already been posted in the Hospital about the election of the student representatives to serve on the Council of the Students' Club for the year April, 1964/65. The arrangements for the election of these representatives will be as follows:

1. The closing date for the nomination of candidates is **Thursday, 20th February,** 1964. The method of making nominations is explained in a notice on the board in the Entrance Hall of the Medical School.
2. The election will be held on **Thursday, 5th March,** 1964.
3. A Ballot Paper will be sent to every medical and dental student before the date of the election, giving the names of the students who have been nominated to represent their years or groups.
4. Each student should complete his/her Ballot Paper and place it in a Ballot Box on the day of the election between the hours of 9.00 a.m. and 5.00 p.m. Ballot Boxes will be available in the Entrance Hall of the Medical School, the Entrance Hall of the Dental School, the College, the Students' Club and outside Smith's bookstall.
5. Members may vote only for the election of the representative or representatives of their own year or group, with the exception that students resident in a Guy's Hostel may, in addition, vote for the Hostel representative.
6. By the rules of the Students' Club *no representatives may be elected unless at least one-third of the group to be represented have voted.*

It is hoped that members will ensure that candidates are nominated for the vacancies for the representatives from the various years or groups before Thursday, 20th February, 1964, and that all students will vote for the candidates of their own choice on the Election Day—Thursday, 5th March, 1964.

G. M. DAVIES,
Hon. Secretary, Guy's Hospital Students' Club

Reunion Dinner

The Past and Present Boxing Club Reunion Dinner will take place at the "Pill Box", Westminster Bridge Road, S.E.1., on Friday, 6th March, at 7 p.m. for 7.30 p.m. Price 26/-. Male guests are welcome. Please contact: W. M. Sheeran, 262, Portland Road, S.E.25.

The Thirty Club

The 35th Annual Dinner of The Thirty Club will be held on FRIDAY, MAY 1st, 1964, at The Royal Air Force Club. Details will be posted to members later.

J. J. CONYBEARE
W. D. DOHERTY

The History of the Teaching of Dental Surgery at Guy's Hospital

by Professor W. E. HERBERT

Guy's Hospital Dental School celebrates its 75th Anniversary this year. The initiative for founding the school came from Mr. Newland Pedley, Dental Surgeon to the Hospital, who obtained the active co-operation of Dr. E. Cooper Perry, who was Dean of the Medical School. The resolution advocating the foundation of the Dental School was passed by the Court of Committees on 19th December, 1888, and the first dental student, namely Mr. Montague Hopson, who later became Senior Dental Surgeon, signed his name in the register in the Medical School Office on 11th February, 1889.

The teaching of dental surgery at Guy's however dates back much further than the foundation of the dental school. Guy's can probably claim to be the first general hospital in the country to appoint a dental surgeon to its staff, and can confidently claim that it was the first hospital to institute a course of lectures on dental surgery; these were delivered by Joseph Fox, who was the first dental surgeon appointed to Guy's, in the spring of 1799, and similar lectures formed a part of the spring course in subsequent years. These lectures were therefore delivered before Guy's possessed a medical school separate from that of St. Thomas's.

Joseph Fox (1799-1817) as a Guy's student was a pupil of Henry Cline. Henry Cline had studied under John Hunter, the great anatomist, who had always been interested in the structure and diseases of the teeth. Fox carried on work which Hunter had begun, and among other things he described accurately hypoplasia and gemination. His book, entitled "The Natural History and Diseases of the Human Teeth", was published in 1803. The illustration of his "ribbon arch" shows an early orthodontic technique. He also perfected the instrument known as the "claw" by introducing a rounded bolster which increased leverage and protected the gums during the extraction of teeth. He did much to forward the education of poor children, giving freely both of his time and his money. Among his friends was Edmund Jenner, who developed vaccination against smallpox, and consequently Fox became the first secretary of the Royal Jenner Society.

Thomas Bell (1817-1861), zoologist, anatomist and surgeon, friend of Charles Darwin, was appointed Lecturer in Dental Surgery at Guy's in 1817. He was already on the staff as Lecturer in Comparative Anatomy, and in 1836 was made Professor of Zoology at King's College, London. His lectures were published in 1827 as a text book entitled "The Anatomy, Physiology and Diseases of the Teeth". He was the first observer to describe hyperplasia of the pulp, and to give an accurate account of the disease known as pyorrhoea. Fittingly, he spent his retirement at Selborne, in the house of Gilbert White, the great naturalist.

S. J. A. Salter (1851-1880) succeeded his uncle, Thomas Bell, as a dental surgeon on the staff of Guy's. His early training in science at

King's College, combined with his distinguished record as a medical student, made him one of the greatest of the early dental pathologists. He described pathological reactions to injury of the dental pulp, using methods of investigation which would have been impossible for anyone without his comprehensive knowledge of Organic Chemistry. In 1874 he published a book entitled "Dental Surgery and Pathology", which summed up his teaching.

Henry Moon (1870-1887) was keenly interested in orthodontics, and stressed both the practical function of the teeth and the cosmetic ideal of correcting defects. He taught that lime salts were of paramount importance in the calcification of teeth, and that the main sources were milk and wholemeal flour. He contributed a section on Dental Surgery to Bryant's Text book of Surgery.

F. Newland Pedley (1887-1907), together with the Dean, Dr. E. Cooper Perry, was responsible for obtaining approval for the foundation of the Dental School in 1888. When he joined the hospital staff, the Dental Department consisted of two wooden chairs in the Outpatients' department, for extractions only. Providing instruments and equipment at his own expense, Newland Pedley proceeded to give conservative treatment. The idea which he conceived of founding a Dental School was strenuously opposed by the two existing Dental Schools in London. They repeatedly assured him that they were capable of dealing with all the patients in the area who required treatment. Undaunted, Newland Pedley launched a "war of nerves" against them by referring a ceaseless flow of patients to them daily. One of the dental hospitals was eventually forced to write an official letter begging him to desist, as they could not treat so many patients. This letter Newland Pedley put triumphantly before the Governors of Guy's and with strong support from Cooper Perry (later Sir Cooper Perry), the Dental School was opened in 1889.

Newland Pedley was the first dental surgeon to accompany British Troops on active service, and went to South Africa with the Imperial Yeomanry Hospital. His work led eventually to the foundation of the Royal Army Dental Corps. He retired in 1907 and in 1930, aged 75, he went to live in the village of Acquaseria, on the west side of Lake Como, where he assisted the villagers to build a church, which was opened on 3rd July, 1937. He died there on the 4th May, 1944, and bequeathed to the Governors of Guy's Hospital the residue of his estate, approximately £60,000. Under the terms of the bequest the Governors hold the whole of the residuary estate in trust to commemorate his connection with the Dental School and the income of the estate is applied to the endowment of existing prizes and scholarships and to the establishment of others in connection with the Dental School.

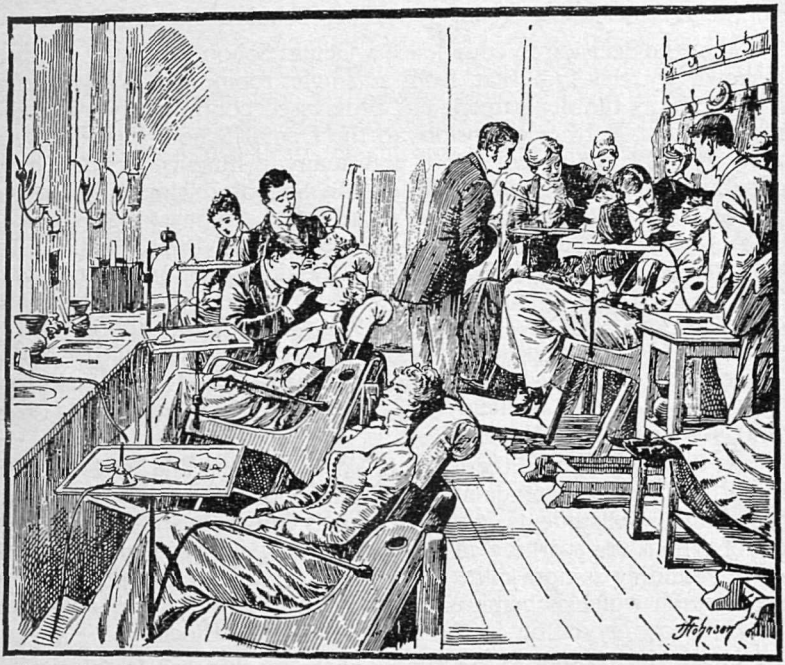
Lees Read (1947), who was appointed to administer the estate on behalf of the Governors, gives further interesting details about the latter days of Newland Pedley in Acquaseria.

The members of the original Staff of the School, appointed in April 1889, were:—

Dental Surgeon: F. Newland Pedley.

Senior Assistant Dental Surgeon: W. A. Maggs. Assistant Dental Surgeons: J. Mansbridge, H. Murray, H. L. Pillin, G. O. Richards, R. Wynne Rouw.

The first accommodation provided for the Dental School was a room erected and equipped with twelve wooden operating chairs. This was situated adjoining Petersham House, which was used by the Ward Maids, the exact site being on the ground floor of the present Dental Department to the left of the front door. In as much as this room was to be used solely for the purpose of fillings and operations of a conservative nature, it was named, on N. Davies-Colley's suggestion, "The Conservation Room". It was ready for use in October, 1889 and a photograph appeared in the *Daily Graphic* on 1st October, 1890.



The original Conservation Room, 1890. From "Daily Graphic", Oct. 1st, 1890.

The decision to extend the dental department by the establishment of a School of Dental Surgery was made partly in order to give increased facilities for the treatment of patients and also to give students an opportunity of acquiring a knowledge of dentistry at a large general hospital in connection with a well-known School of Medicine and Surgery. This close co-operation between the Medical and Dental Schools has always been maintained.

In addition to the accommodation provided in the original Conservation Room, the school soon occupied a ward which was vacated by the College when the new College buildings were opened by Mr. Gladstone in 1890. In 1892 the number of students had grown so large that a new building had to be erected. This was

officially opened by Sir John Lubbock (Lord Avebury) on 17th July, 1893. The ceremony was followed by a luncheon at which Sir Edwin Saunders, dental surgeon to Her Majesty the Queen, and to St. Thomas's Hospital, responded for the Visitors.

Half of the new building was occupied by the departments of Chemistry and Physics, the Conservation Room occupying one side only, the south side of the present department, whilst the east side formed a lecture theatre. New patients were seen in the Out-patients' department and the extraction and anaesthetic rooms were situated on the ground floor of this department. Pearce (1925) gives a great deal of detailed information about the early events in the development of the School, such as the adoption of the constitution, the formation of the Dental Council, the formation of the Dental Society in 1894 and the establishment of the Travelling Scholarship in 1900.

That the decision to commence a Dental School was fully justified is shown by the fact that from a single room containing twelve wooden chairs the department has progressed continuously up to the present time. Further extensions to the Dental School building were made in 1912, 1926 and 1950, and many distinguished men have contributed to the development of the School during their active service as Dental Surgeons to Guy's Hospital. Amongst these were:—W. A. Maggs (1889-1911), R. Wynne Rouw (1889-1917), J. H. Badcock (1891-1904), M. F. Hopson (1893-1925), H. L. Pillin (1895-1918), J. B. Parfitt (1901-1922), J. Lewin Payne (1904-1929), E. B. Dowsett (1910-1935), F. J. Pearce (1910-1931), A. P. Aubrey (1911-1914), H. C. Malleson (1914-1935), F. N. Doubleday (1919-1945), F. Bocquet Bull (1919-1946), G. B. Pritchard (1920-1954), W. Kelsey Fry (1922-1949), A. Bulleid (1922-1957), H. L. Messenger (1927-1949), K. Hooper (1931-1958).

At the present time there are 172 dental chairs and units and the annual number of attendances of patients is about 150,000. The total number of students in the School is approximately 400, about half of whom are working in the various clinical departments. The present building is now quite inadequate for the treatment, teaching and research which is being undertaken and plans are well advanced for new accommodation in the proposed Tower Block.

This short account of the history of the teaching of dental surgery at Guy's Hospital is based on articles and books the references to which are given below. Similar information has been included in a Photographic Exhibit on the Teaching of Dental Surgery at Guy's Hospital which has been shown at the Annual Clinical Meeting and also at the Royal College of Surgeons on the occasion of the Licentiate in Dental Surgery Centenary celebrations in July, 1959, and also at the Centenary Meeting of the American Dental Association in New York in September, 1959.

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NEW JOINTS FOR OLD

M. A. NELSON
F.R.C.S.

For centuries biologists have been fascinated by the ability which certain lower animals possess of replacing damaged parts with new ones. Unfortunately, Man has no such gifts so that in an ageing population, increasing numbers of people have time to suffer from their worn-out and diseased joints. Osteo-arthritis and rheumatoid arthritis wreak havoc to the major weight-bearing joints of the hip and knee, producing progressive pain and disability and occasionally resulting in a completely bed-ridden patient. The hand can be reduced to a painful, deformed and useless appendage by the damaging effect of rheumatoid arthritis on the soft tissues and the joints.

Surgeons have for some time experimented with new joints, appreciating that the "perfect" new joint should replace the damaged one leaving painfree functional movement. An exact replica composed of bone and cartilage would be ideal, but this poses certain yet unsolved problems. Implanted bone becomes incorporated by a process of absorption and replacement, the implant merely acting as a framework upon which the new bone is laid down. This would take many months or even years to be completed in the case of any reasonably-sized implant.

Until the perfect natural joint has been developed, surgeons will have to make do with artificial materials from which to shape their new joints. These materials must possess the following properties:—

1. *Strength*, to withstand the extreme forces present at the hip and knee.
2. *Inertness*, in order not to stimulate a foreign body reaction.
3. *Non-carcinogenic* quality.

Many materials have been used, ranging from low friction plastics to stainless steel and chrome-cobalt alloys (vitallium); recently the element titanium has been used in this country.

Although many different devices have been developed to replace

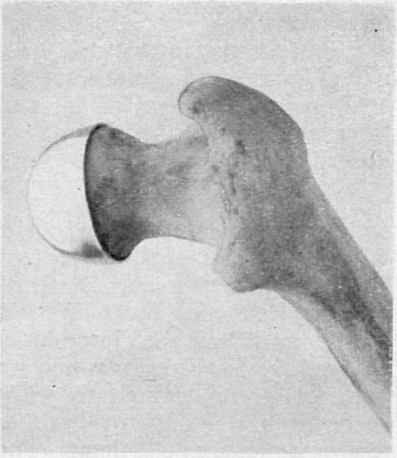
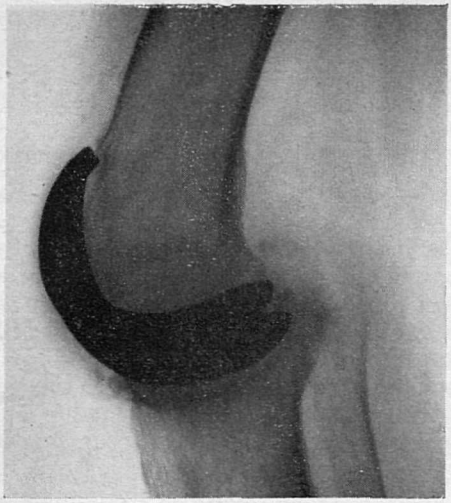


Fig. 1. Smith-Peterson Cup (Mould Arthroplasty)



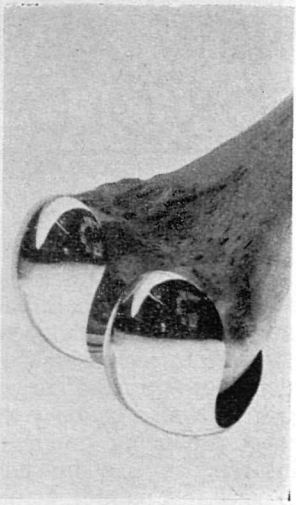


Fig. 1(a) *Fig. 2(b)*

Platt Mould Arthroplasty of Knee

the hip and the knee joint, only a few have withstood the test of time. New inventions are hailed with great hopes only to disappoint years later.

In 1939 Smith-Petersen experimented with the idea of producing a new hip joint by the interposition of a smooth, rigid plane between organising blood clot on the adjacent bony surfaces. He developed the Mould Arthroplasty (Figure 1). This consists of a stainless steel cup which is placed between a shaped femoral head and an enlarged acetabulum. New joint surfaces lined with fibro-cartilage are formed and movement occurs between the femoral head and the cup and between the cup and the acetabulum. The Mould Arthroplasty is to-day successfully used by many surgeons especially in bilateral hip disease where the construction of one mobile hip is essential in order to allow the patient to walk. Platt has recently used the same technique in the knee joint (Figure 2). In the hip joint, the mould arthroplasty seems to fail in some patients as bone absorption causes the cup to sink deeper into the acetabulum and the femoral head to absorb. It is too early yet to assess the knee arthroplasty.

The first Replacement Arthroplasty was produced by the French Judet brothers in 1950. It consisted of an acrylic femoral head which was set into the neck of the femur after excision of the bony head. This prosthesis was enthusiastically received by orthopaedic surgeons in many countries and within two or three years, hundreds of these plastic heads had been inserted. Reports of failure (Pridie 1955) soon reached the Medical Press and it was realised that the plastic material was not strong enough to withstand the forces at the hip joint. Although the Judet prosthesis has been modified and strengthened, few surgeons now use them. The majority prefer the model designed by Moore in 1952.

The Moore Replacement Arthroplasty (Figure 3) was originally made of specially hardened stainless steel. In recent years it has also been forged in vitallium. It consists of a metallic head and neck with an intra-medullary extension which replaces the bony head and neck and projects into the marrow cavity of the upper end of the femur. The straight stem prosthesis developed by Stamm, is similar but an attempt has been made to reduce the strains at the hip joint by altering the position of the femoral shaft so as to bring it immediately

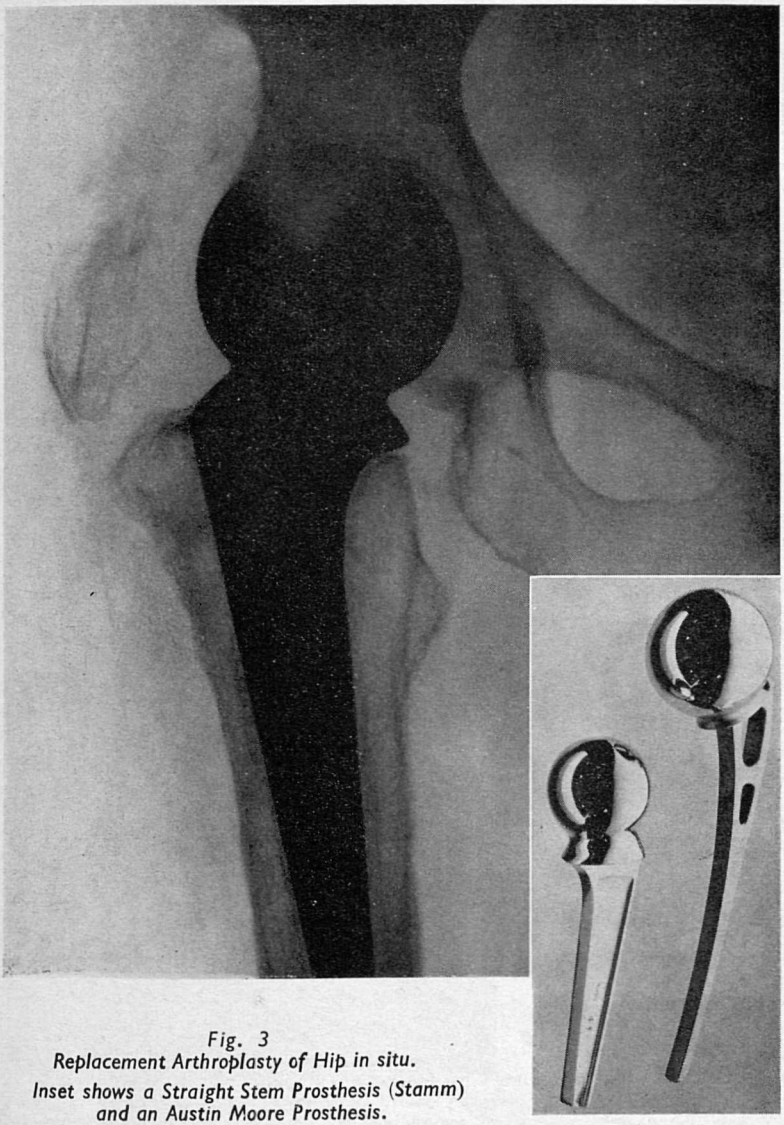


Fig. 3
Replacement Arthroplasty of Hip in situ.
Inset shows a Straight Stem Prosthesis (Stamm) and an Austin Moore Prosthesis.

beneath the acetabulum. These prostheses have been successfully used in the treatment of osteo-arthritis of the hip but complications occur early (within ten years) so that it is only the more elderly patient who is suitable. Replacement Arthroplasty has also been most useful in the treatment of avascular and ununited femoral neck fractures after failed internal fixation; and as the primary treatment of this injury in the very old.

Increasing interest in the place of surgery in rheumatoid arthritis of the hand has stimulated surgeons to consider the replacement of disorganised unstable digital joints by metallic hinges (Figure 5).

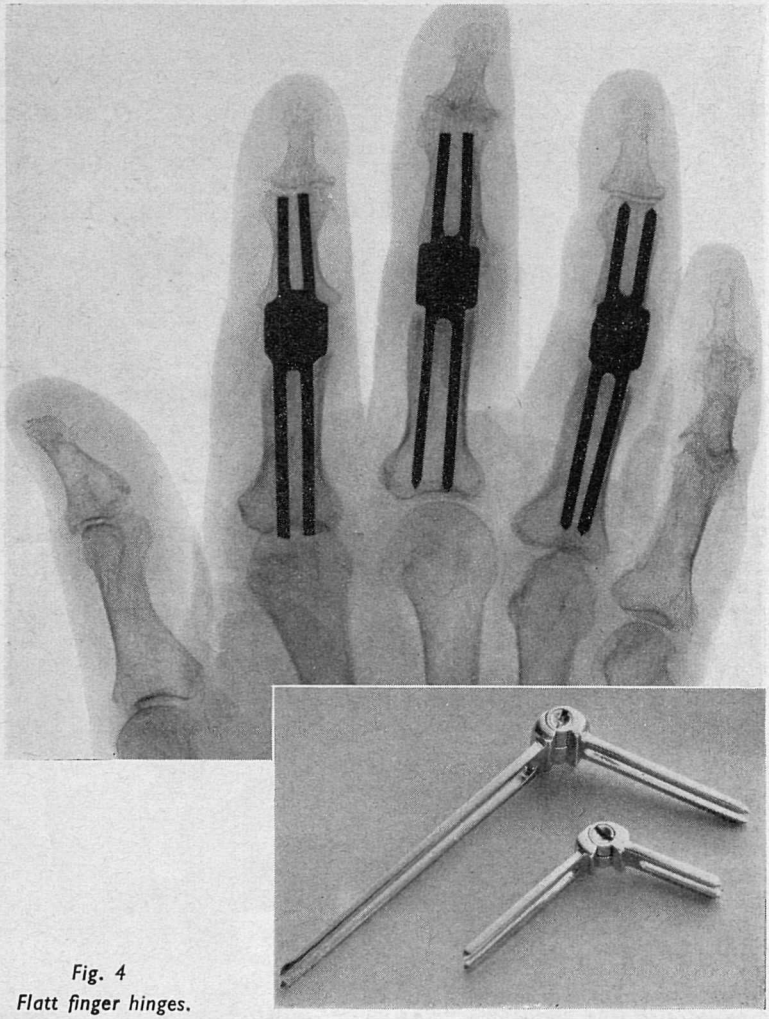


Fig. 4
Flatt finger hinges.

Flatt has been using these hinges in carefully selected cases for some years. He stresses that the hinge is unable to withstand the strains of normal use but seems to work well in the weakened hand of the rheumatoid patient, considerably improving both function and appearance.

What of the future? Once the mystery of foreign protein rejection has been solved, we may see the transplantation of whole joints from one patient to another and if these can be incorporated without reabsorption, then the answer may have been found to the problem of the worn-out joint.

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This article is the first of a short series on replacement therapy to be published in the Gazette. *Each article will be written by a specialist, who will describe present and future developments of such techniques in his field of surgery.*

NOTICES

Missing Books

The following volumes are missing from the Pathology Department Library, and no entries relating to them are to be found in the borrowers' book. It is urgently requested that they be returned to the Departmental Secretary at the earliest opportunity.

Proceedings of the Society for Experimental Biology and Medicine	Vol. 91
Annual Review of Biochemistry	Vol. 25, 27, 28
American Journal of Pathology	Vol. 37
Archives of Pathology	Vol. 50
Journal of the National Cancer Institute	Vol. 25, 26
Immunology	Vol. 4
Journal of Hygiene	Vol. LVIII
Bulletin Institut Pasteur	Vol. XLVII, XLVIII
Public Health Report	Vol. 72
Journal of Clinical Pathology	Vol. 11

S. De Navasquez.

Correction

The name of the Director of the School for Dental Auxiliaries at New Cross is Mr. J. V. Bingay, not, as reported in the last issue of the *Gazette*, Mr. J. V. Bungay. The Editors apologise for this error.

NEWINGTON LODGE

The Care of the Aged and the Homeless

by RICHARD STURGE

National Assistance Act 1948. Part III. 21. (1). *It shall be the duty of every local authority . . . to provide*:—

(a) residential accommodation for persons who by reason of age, infirmity or any other circumstances are in need of care and attention . . . ;

(b) temporary accommodation for persons who are in urgent need thereof, . . .

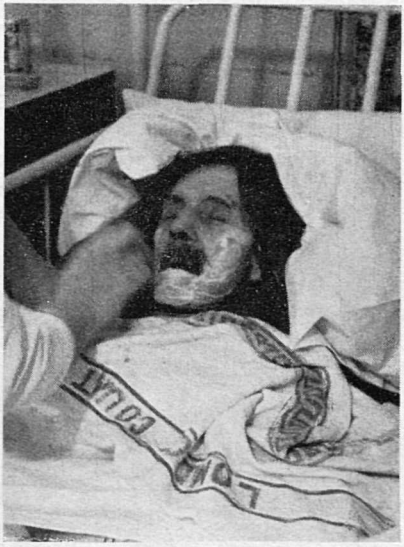
Newington Lodge. Visions of half-remembered Press and TV reports. Of Evelina housemen down the 'phone to E.B.S., "No, sorry. Isolation cubicles full up and not a hope in the general wards." Of doctors at Hither Green, "This child is from Newington Lodge. Sonne of course. . . ." A municipal slum? Or ready acceptance of second-hand impressions? Newington Lodge serves two functions and in this first article its rôle as an Old People's Home is described. A second article will describe a reception centre for homeless families and try to give a picture of the types of family that become homeless, with a brief outline of the background to their homelessness.

Newington Lodge was built in 1832 as an orphanage for Surrey County Council, within whose boundaries it then lay. In 1863, with the replanning of the county boundaries, it came under the auspices of the Southwark Board of Guardians, who converted it into a work-house and administered it as such under the Poor Law. In 1930 the L.C.C. took over the administration and in 1948, with the passing of the National Assistance Act, it was designated as Part III accommodation and continued as an old people's home. A year later, with the incidence of homelessness in post-war London still on the increase, it became in addition a Reception Centre for homeless families under the same Act. This strange association of two unrelated welfare services was partly dictated by circumstance. It may also have been a hangover from the old Poor Law attitude of regarding old age and destitution as a single problem to be solved, at least in part, by the provision of "indoor relief".

Standing in its own grounds in a residential road between the Old Kent Road and Walworth Road, Newington Lodge has accommodation for over 1,000, both elderly and homeless. It is a large place, larger than one at first realizes, and is staffed by a Warden, with two assistants, a Matron and Assistant Matron with 14 trained nurses and 125 male and female orderlies to look after the old people. There are two social workers and four welfare officers, as well as a tailor, two hairdressers, cooks, porters, engineers and all the other staff necessary to run a large institution. Although no longer understaffed, the warden finds great difficulty in recruiting sufficient numbers with the qualities necessary for handling the old people who make up the great majority of the residents.

The Old People

The main buildings comprise the old people's home. This is one of the last of the large institutions and it has remained basically unaltered since its workhouse days; others have been modernised or broken up into smaller units, but Newington Lodge has seen little structural alteration and, it is hoped, will be closed down within the next ten years. Inside, however, the atmosphere is friendly and cheerful, with clean paintwork and corridors bravely brightened with artificial flowers. Only the wards themselves hold memories of the old days, and demonstrate the chief disadvantages of such an institution. Large and airy but crowded, with from 40 to 70 beds, and with groups of "patients" sitting round the vast coke stoves which have heated them for the past 35 years, they are reminiscent of many another old-fashioned long-stay hospital. But this is not a hospital, it is a home, and one where privacy exists only in the bathroom.



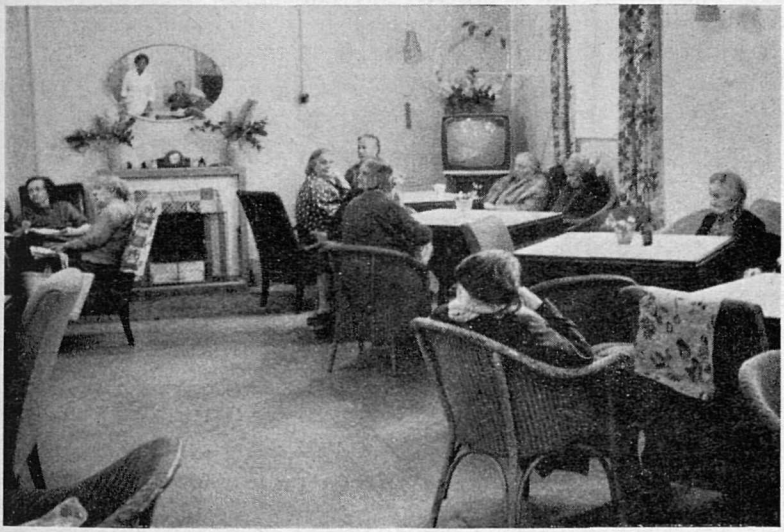
Much of the hospital atmosphere is due to the fact that four wards, totalling over 300 beds, are given over to the chronic sick. These are residents who are more in bed than out, requiring continual attention and supervision, and are a severe strain on the resources of the fourteen trained nurses and visiting M.O. Apart from chronic chest cases and degenerative cardiovascular disorders many have severe neurological lesions, of D.S. and Parkinsonism in particular, or are dementing. At any one time the kitchen is producing about half a dozen different types of special diet. By rights most of these patients, if not all, should be in geriatric hospital, but the beds are not available and so they crowd out residential homes which far exceed their bounds to cope with them. In this respect Newington Lodge plays its role to the full and contains one half of all the chronic sick in L.C.C. homes. The Warden and Matron are at present campaigning to introduce a physiotherapy unit but it is a hard battle against the official view that this is merely an old people's home.

In spite of the inevitable lack of privacy the warden estimates that a very high percentage of the 700 residents actually prefer institutional life to living at home, either by themselves or with their families. Many also prefer living in a large instituton, where they can get lost in the crowd, to life in a smaller home where they often

feel under constant surveillance. This, of course, applies to single or widowed people rather than to married couples. It is in contrast to popular belief (Lord Attlee, for example, has said that institutions are terrible things) but the fact remains that unless the family is particularly devoted and loving the parent or grandparent often feels ill at ease, irritable and sometimes guilty in the perpetual presence of younger people. Tolerance of other people's idiosyncrasies decreases as one gets older and one becomes more querulous and more demanding in nature. These are characteristics for which institutions are specially geared to cater. Here mutual understanding and comfort can be obtained from people of one's own age and one can reminisce and yarn about the old days with friends who understand and shared the same experiences. Nobody yawns and darts off to bath the kiddies or take the bird to the cinema. Nobody mutters about too many cooks in the kitchen and no noisy children shatter the tranquillity of the afternoon nap. This is not to advocate the other extreme and suggest that old people should be tucked away entirely into their own little world. They may prefer to live among their own age-groups but contact with families, children and even strangers enlivens the existence of the elderly and keeps their interest in the world alive. Visitors are always welcome and doubly so in an institution. About two hundred of the residents at Newington Lodge never have a visitor, their declining years are spent entirely in the company of the staff and the other residents. No fresh faces come to brighten them up and their contact with the world and eventually with life becomes more and more tenuous until they die in the knowledge that no one outside their immediate circle has missed them.

The depths to which lack of contact and outside interests can drive a solitary old person is exemplified by the fortunately rare

occasion when one is compulsorily removed to a residential home such as Newington Lodge under a Magistrate's Order as "being in need of care and attention". The stories in such cases are all very similar. A marriage partner has recently died, or a life-long job has been relinquished, and, in the words of Sir Compton Mackenzie, "Suddenly they are pushed out of the ant heap and forced to become individualists". Some just cannot cope; a septuagenarian cannot adapt easily to a new way of life and so, with no friends or relations to bolster him up and too proud or too ignorant to ask for help, he gradually sinks into apathy and indolence. Some time later the health visitor discovers him lying in bed surrounded by filth, emaciated and probably verminous. He is cleaned up and gently persuaded to accept admission to a residential home, in the last resort a Magistrate's Order being invoked. In the past four years only eight people have been admitted to Newington Lodge for three weeks' compulsory rehabilitation and they all eventually agreed to stay on voluntarily without further implementation of the order. Some are not so lucky as this, loneliness can drive even old people to attempt suicide and recently an old man was discovered in bed in his one room flat in Cardiff, dead for six months. Such cases are not common but with an ageing population and the poor sense of family responsibility that characterizes the Britain of the Welfare State they must be expected to increase.



Much of the atmosphere of a residential home depends on the attitude of the staff who run it. Old people can be just as apathetic inside a home as they would be if they were living by themselves unless they are continually stimulated and encouraged to maintain their interest in life and in each other. Many of the residents when they first arrive at Newington Lodge are withdrawn and introspective

and some have that fear of the workhouse that they remember from their youth. But within a very short time they begin to feel part of the community and even the most solitary have made at least one firm friend. Television, one of the greatest boons to old people with time on their hands, provides amusement during the evening hours, and separate I.T.V. and B.B.C. lounges help prevent discussions over the rival merits of the two channels from becoming too heated. Coach outings, holidays by the seaside, bingo, Darby and Joan Club, Blind Club, handicraft classes are all activities provided by the staff and in which nearly everyone finds something to interest himself. Some of the more active can even earn a little extra money by doing light packing work under contract from outside firms. No one is forced to take part in these activities, every cross-section of the community has its isolationists who prefer their own company, and the elderly are no exception, but even they generally find some activity to their taste and a companion to share it. Indeed it is the range of social activities to be found in Newington Lodge that provides one of the chief justifications for its existence. For not only do they provide interest and enjoyment at the time but the coach trip to Southend or the holiday at Bournemouth provides a topic of conversation for days afterwards.

However, the days of the large institution are numbered and the warden encourages the fitter and more active of his residents to go into the smaller and more personal homes of 50-120 people now becoming available. No amount of devoted care can entirely offset the crowded ward and that strange feeling of being in a crowd and yet alone that one only finds in the large institution.

The second part of this article, which will conider the problem of the homeless, will appear in the next issue of the Gazette.

NOTICES

The Innominate Club

The next dinner of the Innominate Club will be held on Friday, 1st May, at the Bath Club. Please note change of address and early date. Sir Russell Brock will be in the chair. For tickets please apply to Secretary.

G. T. HANKEY.

89, Harley Street,
London, W.1.

Guy's and UNICEF

A *Shrove Party* will be held on Tuesday, 11th February, from 8 to 11 p.m., in the upper lounge of the Students' Club (Newcomen St.). There will be a buffet supper, beer, cider, coffee and dancing to records. All profits will be subscribed to UNICEF. Tickets will be obtainable at the door, price 5/- single, 8/- double. Everyone connected with Guy's is most welcome.

Goya

Concurrently with the present exhibition at Burlington House (students admitted for 2/6d.) all students, staff and nurses are warmly invited to attend a lecture by Mr. Fairhurst, A.R.C.A., entitled:—"Goya, and his works at the Royal Academy", on Tuesday, 11th February, at 5.30 p.m. in the Anatomy Theatre.

JENNIFER R. TOWNSEND,
(Hon. Sec.)

PROFILE

Taffy

To the left of the post-mortem notice board in the College is a poky little room which houses Guy's communication systems. It is run by a team of men working on a shift system; one such man is Alec 'call me Taffy' Phillips. Thus he describes his work of mediation, "if an outside call comes you push this black'un back. When it's an inside'un, that little thing goes up an' down. You put this in there, pull this back, an' . . . " At this stage Taffy winds the whole machine as if it were a clockwork toy or some mechanised haemoglobin molecule vitalised by H. G. Wells. "I have taught a couple of students how to do it", he modestly added.

He left Wales in 1936 to spend 24 years odd-jobbing in London's building trade but, "I thought there was a better way of earnin' a livin'," so he took a job at Guy's where he worked as a porter for two years, but "there was too much walkin about!" Then to the College, where he became nicknamed 'the Harry Secombe of Guy's because "I'm a bit of a comedian and singer, and I look somethin like 'im, fat!" From his throne at the hospital's crossroads, Taffy the all-seeing eye confesses, ' I see a lot goin' on but I don't say nowt about't". "Drink! Cor, not much," he replied, "students often bring me one!" He thinks that nurses are "charmin'," but I 'ave to lock the door at twelve an' it breaks me heart to send 'em to Casualty!" Characteristically he breaks into a laugh which ends in a rasping guffaw and expiratory cough. And the Welsh "I can't 'ate 'em because they're my own flesh an' blood!"

He is an avid Edgar Wallace reader, and though an expert darts player he claims less success with football pools. He does a lot of motor cycling 'tootling around, I 'ad a 650 Triumph, darlin' little bike, I used to be a bit of a ton-up kid once". His political affiliations are non-existent and his religion very individualistic. To bring his character into completion, he hates beer in tins, enjoys "a good Handel's 'Messiah' ", and, with masterly diplomatic avoidance, he said of Lord Home, "I liked old Churchill, 'e was a great one, a man and a 'alf". So is Taffy.

Guy's Hospital Dental School—Alumni Luncheon

The Alumni Luncheon which is held on the occasion of the Annual Conference of the British Dental Association will take place at the Connaught Rooms, Great Queens Street, London, W.C.2, on Wednesday, 1st July, 1964.

CORRESPONDENCE

Nurses and Students

SIR, As a past chairman of the Student Nurses' Association I naturally feel some concern about recent letters published in your magazine. It is evident for several reasons that amalgamation of the Student Nurses' Association and the Students' Union is impossible.

However, in my first year as a student nurse at Guy's, I was able to join the Music Club, Fencing and Christian Union and also helped organise part of the Brighton walk. My friends and I were not barred from attending the Art Club, Debating Society, Dramatic Society or from playing squash, etc. Nurses are invited to the Saturday dances and Medical and Dental students used the nurses' swimming pool. May I point out that the Scottish Dance Club was held at a late hour to enable nurses to join in after duty. If the societies mentioned are not of sufficient variety I can suggest many others in London, if requested.

In reply to the concern felt over the lack of present publication, this is surely due to the reconstruction of the Colonnade thus limiting space temporarily.

I fail to understand what more the nurses require. I suggest that there may be an individual apathy amongst nurses and students, especially where their own Unions are concerned.

Yours, etc.,

PATRICIA JEWELL

Sussex Maternity Hospital,
Buckingham Road,
Brighton 1.

Occupational Therapy

SIR, I have just read with much interest the article *Occupational Therapy Today* in your *Gazette* of January 25th, and I wonder if a note from an ex-patient at the York Clinic might conceivably be of interest?

I do realise that the Occupational Therapist's work is (or can be) of great value and is often done under difficult conditions; but I still feel that every O.T. should hang on her bedroom wall this brief prayer: "O God, help me never to be Jolly". I know that I was not alone in feeling that nothing is more unhelpful (indeed positively alarming) to a patient recovering from acute nervous depression than the "Ups-a-Daisy! *Aren't* we all having fun?" approach. I have no experience of how it work with psychotic patients, or on the Medical and Surgical Wards; but I feel strongly that sincerity between therapist and patient is the very first essential. Thank heaven, all O.T's do not have this horribly jolly manner; but does it not seem to be an Occupational Risk? Where it exists, I daresay it is sometimes a form of self-defence, a mask—possibly even a substitute for pausing to use the imagination.

I do hope that this will not be taken as discouraging or unkind criticism; I assure you it is not intended to be, and I would like to hear what O.T's or other patients, think.

Yours, etc.,

SYLVIA STRONG

Andover,
Hampshire.

"Separate Tables"

SIR, Your readers might be interested to know that the Theatre Club are to present Terence Rattigan's *Separate Tables* as their next production. This will take place in the Physiology Theatre during the week commencing 2nd March, immediately following the Residents' Play. Tickets are available from the Secretary, and will soon be on sale outside Smith's bookshop.

Yours, etc.,

NICOLAS FLOWER
Hon. Secretary.

Guy's Hospital.

The Bulge

SIR, The new firms have just been published and once again some of them are almost unmanageably huge. How much experience will 14 members of a medical firm get in the course of three months with only two "take-ins" for the firm? A few months ago one might have asked how valuable the psychiatry appointment was without ever having a ward patient, or whether twenty pairs of eyes scrummaging for a look down a Sims' speculum could ever see anything at all, but those black spells have been endured and are gone, at least for the writer.

One knows there are reasons for this, but surely it is deplorable that alterations in the clinical course should cause the experience of many students to be more than halved by putting two sets together where only one should rightly be.

Perhaps when the new clinical course has completely replaced the old the firms will return to normality—or is the annual intake of clinical students too great anyway?

Guy's has an enviable reputation in London for the amount of practical experience accorded to its students. This is beginning to amount to a complete illusion as firms swell and "take-ins" (surely the most valuable of assets) become fewer and more populous.

Yours, etc.,

FELIX MEDICUS

Medical School,
Guy's Hospital.

NOTICES

Guy's Hospital Biennial Dinner

The next BIENNIAL DINNER will be held at the Connaught Rooms, Great Queen Street, Kingsway, London, W.C.2., on FRIDAY, 2nd OCTOBER, 1964, at 7 p.m. for 7.30 p.m. The Chairman will be E. G. Slesinger, Esq., O.B.E., B.Sc., M.S., F.R.C.S.

The Biennial Dinner affords the most popular opportunity for old Guy's men and women—medicals and dentals—to meet again and to renew the friendships of their student days.

Please make a note of the date. Further details will be announced in the *Gazette* and letters will be sent to all those who have attended previous dinners—and to those who request application forms.

Your attention is drawn to the suggestion that a Clinical Meeting should be held in connection with this year's Biennial Dinner.

NILS ECKHOFF,
Honorary Secretary.

Clinical Meeting

It has been suggested that a Clinical Meeting be held on Friday afternoon, 2nd October, and Saturday morning, 3rd October, in connection with the Biennial Dinner, which is being held on FRIDAY, 2nd OCTOBER, 1964. If any Guy's man or woman intending to come to the Dinner is interested in attending the Clinical Meeting, will they please write, as soon as possible, to Mr. Eckhoff, stating whether they are able to attend on (a) Friday afternoon, 2nd October, (b) Saturday morning, 3rd October, or (c) both sessions.

There will be a rugby match at Honor Oak Park in the afternoon of Saturday, October 3rd, when the Guy's 1st XV will play the United Services, Portsmouth.

It will depend upon the response received to this announcement as to whether the proposed Clinical Meeting can be held.

NILS ECKHOFF.

Guy's Hospital,
S.E.1.

SPORT

RUGBY FOOTBALL

Against Devonport Services, Guy's had a handsome-looking win and in so doing took up try-scoring again for the first time since December 7th—with three fine scores by Biggs, Hendricks and Kerner. The forwards exerted a dominance and a pack-spirit which augured well for the future and resulted in a well-earned win.

The Coventry match was not significant, with the visitors including several reserves, as the County final had deprived them of so many players, and Guy's naturally aiming to reserve their strength for the Cup match. A well-drilled team performance which, with luck from penalty kicks could statistically have been improved upon, resulted in a goal-less draw.

Hospitals' Cup Match. Congratulations to the 1st XV on winning the second round tie against Bart's, 9—0. Report in next issue.

ASSOCIATION FOOTBALL

The club successfully overcame the latest cup hurdle and strode into the semi-final of the United Hospital Cup competition by beating University College Hospital 4 goals to nil. The Hospital are now in the last four of both the University and Hospital Cup competitions. Certainly they have a good well-balanced side capable of playing attractive and very skilful Soccer but occasionally, as in the past, they seem to lack a certain bite in the Cup matches.

In the first semi-final, Guy's meet Imperial College in the University Cup competition at the London School of Economics ground on Saturday, February 8th—very strong opponents, who have held this cup for the last five years. In the Hospitals Cup, the opponents are London, also the cup-holders. At the same stage of this competition, Guy's met the London last season.

With such challenging opponents, Guy's have everything to win—it is quite within their ability to master such opposition by calmly playing to the full extent of their known high standard—and after twelve barren years, the club must surely emerge with deserved honours this season.

In the Argonaut trophy, seven Guy's players helped United Hospitals to the semi-final when they beat R.A.F. Cranwell 1—0, namely:—W. W. Davies, P. Sheridan, P. D. Davies, R. Shepherd, E. Elias, J. Cutler, and J. Powell-Jackson.

GOLF

The club are to be congratulated on regaining the United Hospitals Cup by beating Middlesex. Having had a considerable monopoly on the Cup over the last 15 years, it was encouraging for maintenance of that record to have such a convincing performance from a team which, with the exception of McCay, will be available next season.

It should also be noted that M. Brummitt was unable to play because of injury and that the newcomers to the club ensure that there is considerable strength for next season.

CROSS COUNTRY

The United Hospital competition for the Kent-Hughes Cup was run last Saturday over the U.H. 5½ mile course. Of eight teams competing, Barts were clear favourites with, perhaps, Mary's and Guy's most likely to push them. As it turned out, raising a team proved quite a problem, but nevertheless Guy's managed to turn out two teams. These were achieved with the help of a hockey player and a pentathlete and some runners, whose imminent examinations meant them performing without adequate training. To these goes much credit, but not to those whose aim in competing is to indulge in the customary celebrations alone.

The outcome ran true to form, with Bart's, Mary's and Guy's finishing in that order, and the Guy's second team performing well to run into sixth place. Once again, the spirit and enthusiasm was very willing and ensured a good competitive result.

RUGBY FOOTBALL

GUY'S v. DEVONPORT SERVICES

At H.O.P. 25th January, 1964.

Result: won 11—3

The match against Devonport Services was played on a fine afternoon and although the visitors fielded a side with four changes from the printed programme, it promised to be an open game.

Guy's started well and from an early scrum the ball went quickly down the line to Biggs, who made some 30 yards before being forced into touch. This first movement was a pattern for the rest of the match. Guy's being in possession of the ball for a great part of the game.

Then followed a penalty to Guy's, taken by Edgar at a difficult angle 3 yards from the halfway line, which narrowly missed. This was followed by a penalty against Guy's for an infringement in the threequarter line which was a kickable position but which was badly missed.

For the rest of the first half Guy's were in the Services' half of the field for most of the time. After about 25 minutes of play, there was a scrummage near the half-way line which Guy's heeled quickly and it went out to Biggs who scored in the corner. Edgar converted with a magnificent kick.

Just before half-time the ball was knocked on behind the Services' line and a five-yard scrum was given to Guy's. The pack wheeled and Hendricks, the No. 8, picked it up and scored —the conversion was missed by Edgar.

In the second half, the Services saw more of the ball but Price consistently out-hooked his opposite number.

After about ten minutes of the second half, Kerner was given the ball just inside the Services' half and after a strong run down the touch line, beating several Services players, dived over the line in the corner. This brought the score to 11—0, but the difficult conversion was just missed.

After this the Services recovered and pressed Guy's and scored a try about five minutes before time; the conversion was missed.

One would have thought that after so much possession of the ball, the backs could have crossed the Services' line more often, but the backs seemed to lack the ability to score. The pack played well throughout the game and special mention must be given to the front row and both wing forwards even though the blind side wing forward tends to be over zealous at times.

MacGregor had a good game and has consistently improved throughout the season. Towards the end of the game he made a good break on the blind side but found unfortunately that it was the Ex-A XV's ball.

Myall, at full-back, played a good steady game as he always does.

This was the ninth win for Guy's this season and this record has raised all Guy's supporters' hopes for success in the cup games.

E. J. CHATER

GUY'S v. COVENTRY

At H.O.P 1st February, 1964.

Result: drawn 0—0

In spite of the visitors' ranks being somewhat depleted, owing to a County game, Coventry fielded a side containing four county players. For this game, which was the last opportunity for the Guy's side as a whole to play together prior to renewing its hostilities at Richmond against St. Bart's Hospital, Myall and Biggs stood down. This was due to their being engaged in examinations on the date of the Inter-Hospitals' Cup tie, their places being filled by Morris and Thomas. Although neither team could claim the decision at no side, much of the play took place well inside the Coventry half and only swift covering by their back row prevented Guy's from scoring on several occasions.

In the first minute Coventry were penalised for offside and Morris attempted to land a penalty from 35 yards. A very deceptive wind added to the difficulties of penalty kicking and six attempts by Morris and Evans all proved abortive. In the early encounters bad handling by the Coventry backs enabled Guy's to intercept and for a considerable time Coventry were defending hard on their "25". Strong tackling by Wright and a good break by Brown brought Guy's to within striking distance of their opponent's line. Edgar found himself in possession in front of the Coventry posts and attempted a drop at goal, this was charged down but Edgar again got possession from the rebound and again tried to put Guy's ahead but was set upon by two Coventry forwards. A Coventry player with his foot in touch was allowed to field a high kick and Guy's were soon after penalised in the scrum, thus the pressure was temporarily relieved for Coventry.

Some rough play ensued and led to the referee lecturing the forwards of both sides, but one cannot help feeling that this was precipitated by the repeated intrusions of one of Coventry's second-row forwards in the loose. Guy's then made some spirited attacks and a break by the Coventry backs ended in an attempted drop at goal in front of the Guy's posts. Play returned into the Coventry half and at the change over one thought that with the wind at their backs the home side might perhaps cross their opponent's line.

Edgar made full use of the variable wind with several high penetrating kicks towards the right. The Coventry full-back, Walker, after throwing in and gathering the ball himself, was quickly tackled by three fast breaking forwards and afterwards was subjected to a testing pressure. An attack by Coventry was frustrated by MacGregor who felled Jenkins with a devastating tackle. A good Coventry movement soon after was spoiled by an extremely bad pass out to the right when their backs were looking extremely dangerous with the Guy's defence in full flight; the loose ball was gathered by Morris who, with a well judged kick sent Coventry reeling back to just short of their corner flag. A superb break by Thomas on the half-way line, ably supported by Wright and Kerner should have brought its just reward, but the Coventry covering left no loopholes and helped by some fierce tackling the line was kept intact. As no side was approaching, the Guy's supporters' pulses quickened as Kerner, with a powerful run, was felled when within a hair's breadth of scoring a superb try—this was the nearest that Guy's got to opening their account.

This was an encouraging display by the Cup side who, although dominating much of the play, were overshadowed in the line-outs. Although the Coventry side was depleted, the presence of their regular players would probably, apart from perhaps on two occasions, have made little difference to the result.

NIGEL KNOTT

Team: Morris, A. M.; Thomas, J. C., Wright, C. J., Allan, A. J., Kerner, R; Edgar, J. A., MacGregor, H. W. Davies, J., Price, E. S., Stansfield, R., Peace, P. K. Hartley, D., Brown, R., Hendrick, D., Baker, I. A. (Capt.),

National
Provincial

The Guys Hospital Office, which is opened for your especial use, is under the management of Mr. W. C. Frankum, Southwark Branch, 12-14 Southwark Street, London S.E.1, and enquiries will be welcomed.

ASSOCIATION FOOTBALL

HOSPITAL CUP QUARTER-FINAL
GUY'S v. U.C.H.

At H.O.P. 22nd January, 1964.

Result: won 4—0

Guy's played the quarter-final of the Hospitals' Cup against U.C.H. on their ground where the pitch was a little heavy but otherwise good.

Guy's as usual so it seems, started off lethargically. The passing was atrocious and running into position negligible. U.C.H. might easily have taken a goal but as it was Cutler opened the scoring after receiving a fine through ball from the right wing At this stage the defence was getting on top but the full-backs were playing too square Guy's seemed to be relying far too much on the long ball and Cutler was continually being cut out.

The second half showed the U.C.H. defenders to be a little weary and many gaps were appearing in their rearguard. The Guy's forwards were receiving a lot of the ball with plenty of room to work it. However, they continued to play at a slow pace and missed many openings. Cutler added two more to get a hat-trick but he will admit he should have had seven. The centre-forward has scored 47 goals this season; the inside-forwards have not scored a quarter of these between them. They work well in midfield but don't back their own moves up in the penalty area.

Atkins added a further goal to make the final score 4—0. Credit must be given to a fighting U.C.H. for playing hard for the ninety minutes and to a certain extent avenging their 11—0 defeat.

PETER DAVIES

Team: L. G. Parry; P. Sheridan, T. Cochrane; P. D. Davies (Capt.), W. W. Davies, A. Palmer; R. Shepherd, E. Elias, T. Cutler, T. Powell-Jackson A. Atkins.

BOXING

"DORIS PENNY TROPHY"
GUY'S B.C. v. LONDON UNIVERSITY B.C.

At Manor Place Baths. 27th January, 1964.

This was a disappointing evening for both boxers and supporters, the University winning by five bouts to nil.

Gibson began, fighting Wood, who had beaten him previously. The contest followed the same lines as at the last meeting. Gibson attempted to box his way out of trouble against a rugged opponent. Wood caught up with Gibson in the last part of the contest, and again won a points decision. The second bout began with B. Hartley getting well on top, but fitness soon slowed him down. Even so many people thought him an unlucky loser.

Durant, fighting what seemed a much heavier opponent, showed that he is too tall and thin to take a heavy punch. Only courage kept him going for three rounds.

David Edgar boxed well, punishing his opponent with both hands. Unfortunately he was matched against a tough little man who kept coming forward, even though he took quite heavy punches to his face. The supporters thought little of the decision against Edgar.

The last bout figured H. Bethal, a former Cambridge boxing blue, making his first appearance for Guy's. He boxed skilfully, but was not strong enough to cope with the London University boxer.

Hughes and Stansfield could unfortunately not be matched.

The Guy's team will have to be strengthened for the defence of the United Hospitals' Championships. Gibson, the captain, and Charlie Pocknell will obviously see to that.

ROGER BROWN

GOLF

HOSPITALS' CUP FINALS
GUY'S v. MIDDLESEX

At Hendon. 17th January, 1964

Result: won 4—1

Guy's arrived early on Friday morning, and assiduous practice began on snooker-table and fruit-machine.

The afternoon was glorious, with just enough frost to make the greens well-nigh impossible.

In the top match, McCay v. Jovitt, a certain mid-winter sluggishness was apparent in the playing of the first hole; for the technically minded, it was halved in four and three's. After this, two great competitors and good friends had a tremendous match, full of good shots, won at the home hole by the right man.

Adams, as so often, started slowly and was soon down, but the arrival of your correspondent plus the threat of a scathing review induced the necessary improvement. Five holes in succession were won, and Adams playing at his impressive best.

Bevan-Jones was, as always, consistent and unflappable. Indeed, his play veered occasionally to the brilliant. He never looked like losing, and one's only criticism concerns a bunker shot that came hurtling out backwards and, save for fortunately hitting his own trolley and thereby losing him the hole, would probably have decimated the gallery.

Baird, the Captain, after a series of good wins, came up against a professional Potter-style gamesman in home-darned pullover and specially rusted clubs. He also played immaculate golf.

Mewton deserves special praise, for coming into the side at the last minute, and playing steadily to comfortably beat his man.

In short, this was a fine win by a very strong team, who have every chance of retaining this trophy.

Result:

D. A. McCay beat R. Jovitt, 1 hole.
D. Adams beat J. Hickman, 4 and 3.
A. B. Bevan-Jones beat R. Hickman, 5 and 3.
E. S. Baird lost to C. Godber, 5 and 4.
P. Mewton beat M. Fraser, 4 and 2.
Guy's won by 4 matches to 1.

M.J.B.

HOCKEY

2nd ROUND INTER-HOSPITALS' CUP
GUY'S v. MIDDLESEX

At H.O.P. 22nd January, 1964.

Result: drew 1—1

In a typically hard fought Inter-hospitals' Cup game the Guy's team could only manage to draw with a keen Middlesex side. Guy's went into the lead through Appleby and went close to scoring on several other occasions, but just before half-time the Middlesex equalised when a short corner was deflected in.

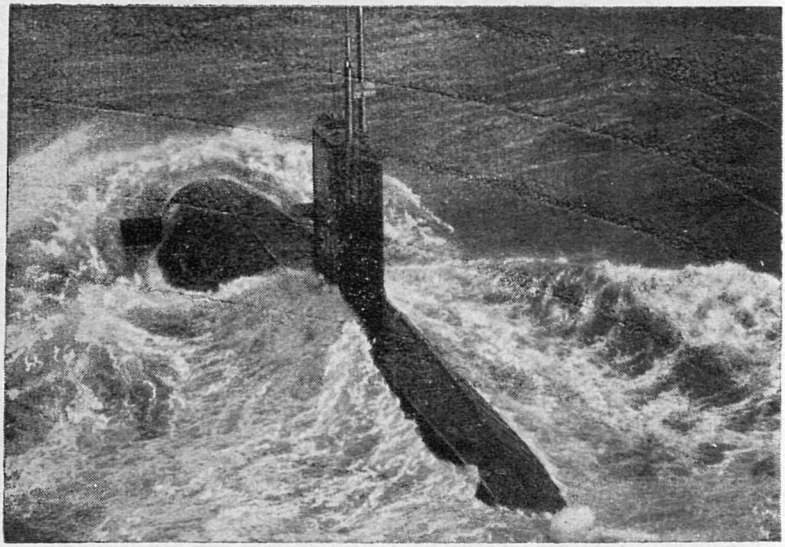
Play continued to be fast and exciting in the second half with both teams having their share of scoring chances However, no more goals were scored though the Middlesex went very close to snatching a victory in the closing minutes of the game when in a goal-mouth melée the Guy's defenders only just managed to keep the ball out of the goal.

Team: A. Hirst. D. Loader (Capt.), K. Haynes, J. Crafts, C. Brooks, J. Sedgwick, R. Carruthers, R. Strickland, M. Appleby, P. Liddiard.

DAVID LOADER

The report of the replay of this match will appear in the next issue. Guy's won 1—0.

The go-ahead OPPORTUNITY that is ROYAL NAVY



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As a Medical Officer, you have complete clinical freedom and a widely varied medical experience. Your practice is among 100,000 Naval men and women. Ashore or afloat, it can take you anywhere in the world from Malta to Singapore: and, when you have a shore appointment abroad, your family can be with you. Go-ahead, too, is your opportunity to specialize: not only in traditional categories, but in the modern sciences of aviation and nuclear medicine.

As a Medical Officer, your pay, allowances, and gratuity—or permanent commission pension—are very good: for example, your initial pay is considerably higher than that of a civilian hospital registrar.

You can enter by one of three ways: as a Registered Medical Practitioner—your civilian experience back-dating seniority—or as a qualified doctor doing your pre-registration year, or as a student with a 2nd M.B. For qualified women doctors, there is a special short service commission.

For fullest details of your Royal Navy life as a Medical Officer, write, mentioning your own qualifications and age to: The Medical Director-General of the Navy, Medical Department (GO12/F) The Admiralty, Empress State Building, London, S.W.6.

MO.2D

HOSPITAL INFORMATION

APPOINTMENTS VACANT

GUY'S HOSPITAL

Applications are invited for the appointment of **Dental Officer to treat In-patients** (General Dental Practitioner grading) with attendance on six sessions per week and duties to commence in April, 1964. Forms of application are obtainable from, and should be lodged with, the Superintendent, Guy's Hospital, London, S.E.1., not later than **Monday, 17th February, 1964.**

EVELINA CHILDREN'S HOSPITAL OF GUY'S HOSPITAL, SOUTHWARK BRIDGE ROAD, LONDON, S.E.1

Applications are invited for the post of **Resident Paediatric House Officer** (with casualty duties) for six months from 1st April, 1964. The appointment is recognized for the D.C.H. and consists of four months medicine and two months surgery. Candidates must be registered practitioners and should apply giving age, nationality, qualifications (with dates), and copies of three recent testimonials to the Hospital Secretary by the first post on **Saturday, 29th February, 1964**

ST. OLAVE'S HOSPITAL

Surgical Round

As from **Thursday, 12th March,** and on every Thursday thereafter until further notice, a bus will be available in the car park at 10 a.m. to take students to St. Olave's Hospital for a surgical round starting at 10.30 a.m., returning at midday. As there is a wealth of clinical material at this Hospital, it is hoped that as many students as possible will avail themselves of this opportunity.

PASS LIST

ROYAL COLLEGE OF PHYSICIANS OF LONDON

M.R.C.P., October, 1963

I. G. McGill
C. N. Mallinson
G. S. Spathis
N. K. Strelling
A. Veijajiva

UNIVERSITY OF CAMBRIDGE

D.Sc.

C. A. Clarke

THE CHARTERED SOCIETY OF PHYSIOTHERAPY

Preliminary

C. M. Barger
A. V. Coburn
G. G. Cook
M. Crews
F. Drummond
C. A. Jarvis
V. J. Lean
H. M. Piper
D. E. Wilkey
P. M. Young
E. A. Aykroyd
A. M. Clark
P. M. Littlewood

Intermediate

J. Baker
S. Barkham
H. Boughtwood
P. Bridger
C. Burns
E. Vanstone
M. Wheeler
M. Garner
E. M. Wilson
M. A. Carpenter
A. Corry
M. M. Garforth
J. Ginnings
B. Hood
A. James
M. C. Gallehawk
S. F. Henchley
J. B. O'Brien
T. Warburton

Final

S. Ablitt
V. Baker
S. M. Bartlett
M. E. Clarke
A. Falconer
M. A. Kemp
P. Smith
F. C. Starr
G. Taylor
S. S. Wells

Teachers, Part I.

E. Goldsmith
C. Thompson

NURSING NEWS

Entered

Sister S. Parker to Bright.
Staff Midwife D. Coles to Nuffield House.
Staff Nurse M. Dodson to Nuffield House.
Staff Midwife M. Harvey to Victoria.
Staff Nurse S. Moseley to Cornelius.
Staff Nurse S. Scanlon to Cornelius.
Staff Widwife J. Rothery to Victoria.
Staff Midwife B. Woolley to Victoria.

Left

Sister Brereton from Nurses' Home.
Sister M. Callis from Nurses' Home.
Sister E. Mullineaux from Bright.
Staff Nurse I. Aggus from Surgical X-ray (nee Hill). Theatre.

PAPERS BY GUY'S MEN

In order to make this list as complete as possible, Guy's men whose papers have not been printed in this column are asked to send the Editor details of their publications.

F. Ellis. Abdomino-perineal excision of the rectum. *Nursing Times*, 1963, **59,** 1470.

J. Ernsting. The effect of brief profound hypoxia upon the arterial and venous oxygen tensions in Man. *J. Physiol.* 1963, **169,** 292.

S. J. Lam. Amputations. *Nursing Times*, 1963, **59,** 1612.

B. McArdle. Metabolic myopathies. The glycogenoses affecting muscle and hypo- and hyperkalaemic periodic paralysis. *Amer. J. Med.*, 1963, **35,** 661

T. E. Oppé. Careers-Paediatrics. *St. Mary's Hosp. Gaz.*, 1963, **69,** 165.

M. J. N. Segerdal A touch of genius. *Dent. Mag.*, 1963, **80,** 215

Sharer, R. M. Left ventricular preponderance and left axis deviation in cyanotic congenital heart disease. *Brit. heart J.* 1963, **25,** 726.

Whitmore, D. N Bisalbuminaemia. *Proc. Ass. clin. Biochem.* 1963, **2,** 179.

P. H. Wright and others. Acute insulin deficiency provoked in sheep and cows by single injections of anti-insulin serum. *J. Physiol.* 1963, **169,** 137.

GLAXO

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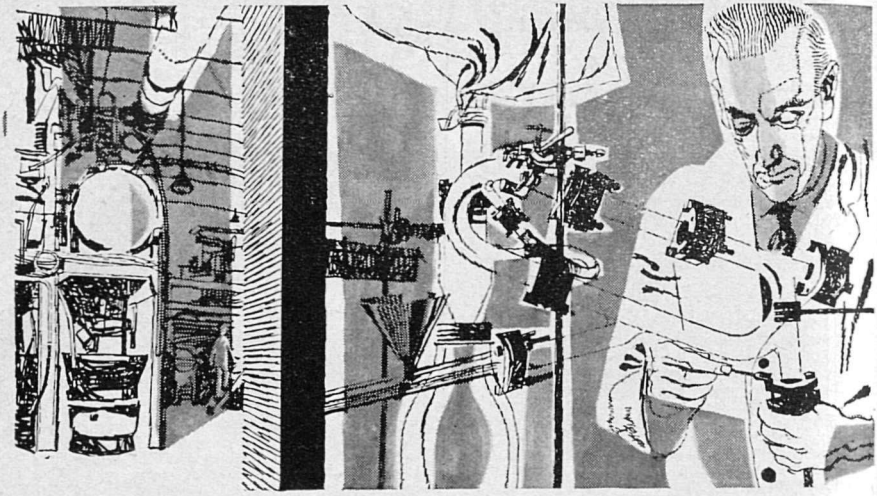

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DENTAL HYGIENISTS. The second course at Guy's for the training of Dental Hygienists will be completed in February. Any dental surgeons wishing to employ a Dental Hygienist on a part-time of full-time basis should contact Mr. J. Goodliffe, The Appointments Bureau, Guy's Hospital Medical School.

CHANGES OF ADDRESS

Dr. D. J. P. Barker, Blenheim Cottage, Flyford Flavel, Worcester.

Dr. D. L. Blundstone, Abberley House, Lime Tree Avenue, Bilton, Rugby.

Dr. O. B. Brears, County Clinic, Dockham Road, Cinderford, Gloucestershire. Tel: Cinderford 3380.

Surgeon Lt. Cdr. J. B. Gornall, R.N., No. 6 Residence, Royal Naval Hospital, Haslar, Gosport, Hampshire.

H. C. Gouldge, Esq., L.D.S., R.C.S.Eng., Old Bank House, Princes Risborough, Bucks. Tel. P.R. 381.

M. Honigsberger, Esq., M.R.C.P., 103, Chapel Lane, Chessetts Wood, Solihull, Warwicks.

Dr. R. K. Knight, 15, The Hall, Foxes Dale, S.E.3.

J. E. A. Knowles, St. Luke's Hospital, Chabua, P.O. Dibrugahr, Assam, India.

Capt. R. H. Mackeith, R.A.M.C., 1, Queens Surreys, Munster, B.F.P.O. 17.

Mr. K. F. McAlpin, 14, Herschell Square, Walmer, Deal, Kent.

Dr. S. R. Meadow, Holbrook House, Holbrook, Derbyshire Tel: Banbury 2295.

Dr. T. A. J. Ogunbiyi, "Florencia", 4, Warmington Road, Herne Hill, S.E.24.

Dr. and Mrs R. W. Penny, 12, Scutari Road, S.E.22.

Dr. and Mrs. J. Mostyn Pugh, The Stream, Old Road, Buckland, Betchworth. Tel: Betchworth 3394.

Dr. B. H. B. Robinson, 93, Exeter Road, Southgate, N.14.

Mr. F. Roth, L.D.S., R.C.S., Eng., "Craigle", King Edward Street, Barmouth, Merioneth.

Mr. F. Roth, L.D.S., R.C.S.Eng., "Craigle", King Edward Street, Barmouth, Merioneth. Tel. Barmouth 68

Dr. D. M. Smith, 109, West Clyde Street, Helensburgh, Dunbartonshire, Scotland.

Professor J. Staz, 005, Killarney Court, Riviera Road, Killarney, Johannesburg, South Africa.

Mr. and Mrs M. Varney-Burch, L.D.S., R.C.S. Eng., 76, Townley Road, Bexleyheath, Kent. Bexleyheath: 0802.

Group Capt. P. A. Wilkinson, Headquarters, T.T.C., R.A.F. Brampton, Huntingdon.

BIRTHS

BLAKE.—On January 5th, at Portsmouth, to Monica (Lisa, nèe Hughes, S.R.N.), and Marcus Blake, L.D.S., R.C.S., a daughter, Lorna Jane.

BRADSHAW.—On November 22nd, 1963, at Guy's Hospital, to Susan (nèe Cox) and Michael Bradshaw, a son, Richard Francis.

GROB.—On 9th September, 1963, to June (nèe Fawcett, S.R.N.) and Paul Grob, M.B., B.S., a son, Stephen Paul. (Devonshire House, Addleston, Surrey).

HORNER.—On January 12th, 1964, to Beryl Jane (nèe Honeyball) and Adam Horner, of Corscombe, nr. Dorchester, a son, Simon.

What do you know about the Q.A.'s?

Q What do the letters Q.A.R.A.N.C. (usually shortened to Q.A.) stand for?

A Queen Alexandra's Royal Army Nursing Corps. Founded in 1902 by Queen Alexandra as the Q.A.I.M.N.S. (Queen Alexandra's Imperial Military Nursing Service), the Q.A.'s are immediately recognizable by their famous uniform of grey dress and scarlet cape.

Q What do the Q.A.'s do in peacetime?

A They nurse the Army and its dependents—not only serving soldiers, their wives and families but many civilians attached to the Army at home and abroad.

Q Are there opportunities of serving abroad and if so where?

A Most Q.A.'s spend some time at an overseas station. There are Army Hospitals staffed by Q.A.'s for instance in Hong Kong, Singapore, Cyprus, North Africa and Germany, to mention just a few.

Q Does the Q.A.R.A.N.C. want trained nurses or beginners?

A There are vacancies for both, but if you are an S.R.N. when you join you will be commissioned immediately.

Q Are there opportunities of increasing professional knowledge?

A Q.A. standards are high, and there's probably a greater variety than anywhere else—you can do Tropical Medicine, Midwifery and Pediatrics as well as all the usual branches of nursing.

Q To sum up—what is the main appeal of the Q.A.'s to a young trained nurse?

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If you're an S.R.N. and would like to know more about nursing as an officer in the Q.A.'s, write to Brigadier Dame Barbara Cozens, D.B.E., R.R.C. Q.H.N.S., The War Office, Dept. AMD4 (GO/Q34D) London, S.W.1.

try for a commission in the QA's

QUEEN ALEXANDRA'S ROYAL ARMY NURSING CORPS

GUY'S HOSPITAL GAZETTE

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Editors *T. C. Davis*
B. H. Hicks

Sports Correspondent *E. Tiller*

Guy's Hospital, London

PASSIM

Security

Community life placates to some considerable extent personal regard for property even when it is one's own. It is this laissez-faire attitude of many of us which makes security so much more difficult in a diffuse community. A door left ajar and one might have lost a handbag, a coat hanging idly is asking to have its wallet removed. "Oh, but it won't happen to me!" And then it does and it is too late. These are just two examples of how property can be stolen. It is so very easy for the thief to make a quick entry and exit at Guy's that much of the responsibility must be laid at one's own feet. Many of us take the problem of security for granted, we recognize what is basic good sense but do not bother to act upon it; it is facile to justify oneself as being idealistic.

A recent scheme at Guy's has been the showing of a film on Security, made by the London Police Force, to each year of the nursing staff. This is preceded by a short and eminently sensible talk by H. Vann, Esq., O.B.E., the ex-Chief Constable of Birkenhead, who points out that it is just those things which people take for granted and do not act upon that make life easy for the thief. How many of us know the number of our wrist watch or transistor radio, for example? There will always be circumstances commanding reasonable suspicion and it could be an immediate response to inform the authorities; but how often does one? Because of the importance of security there is a very good case for gentle reminders of this sort to be handed to the other student departments of Guy's. Perhaps the film could be a different one but there will be a place, particularly for newly-settled students in their first year, to realise that Guy's is not just a glorious pie-in-the-sky happy family but one which is set about by all the tricks and stratagems of an acquisitive society.

Another aspect of a safer life for the community has been the appearance of a zebra crossing at the entrance to Great Maze Pond. How many times this has been asked, pleaded for, in these columns might be embarrassing to repeat, but it is here at last and not to be taken away at the slightest whim, we hope.

The Drain in Brain falls Mainly . . .

A Professor of Physiology may have caused the political storm, but it is not Medicine which bears the brunt of emigration to the United States. In a survey for the academic year 1962-63, covering 70 per cent of all British university staff, only three of those who left for American universities were in medical faculties. This is in contrast to 17 in the field of Pure Science, 16 in the Arts and Social Sciences, and 6 in Applied Sciences. These figures do not include research workers who were not teaching staff of the universities, but however optimistic they may be in relation to the total loss of talent, they at least put the problem of the medical schools in true perspective.

Even if the figures for 1963-64 are higher, and they probably are, the drain on medical research is of more concern as a symptom than as an ailment.

The answer offered by Mr. Selwyn Lloyd, with his reference to the national affluence of the United States and its inevitable attractions, is not wholly unreasonable with regard to the emigration (even as an excuse). In itself the loss of scientists may be of little significance, but the widespread dissatisfaction of those who remain is very significant. Their dissatisfaction is a complex one, and in major centres emphasis is not on lack of financial subsidy for research projects, nor on the level of salaries. Of course, these grievances are real enough in the smaller research units. The chronic malady of British research is in the working conditions of the ablest men, in terms of both material facilities and technical assistance. The attitude which requires months of committee work by a professor to extend his technical staff must cramp both his spirit of enquiry and his pleasure in the job. If we cannot afford to offer our scientists American salaries, can we not leave them with this?

To those who have maintained some faith in the ideal of social progress implicit in nationalised Medicine and Research, there are now grounds for anxiety in both. The family doctor is as concerned about his conditions of service and the nature of his work as Professor Bush is disillusioned with his. Both groups of men are emigrating. Both are complaining. The men who do not complain work for pharmaceutical and other industries; one begins to sympathise with their anxiety at talk of further nationalisation. The lesson of all this is evident, and it is not that socialisation has failed. Socialisation of medical science is on trial, and common sense, not party politics, must come to the rescue.

Someone has already quoted at the scientists, Rutherford's remark to his assistants, "We haven't much money so we've got to think". It's about time politicians did just that.

Pickled Moderns

In Rome to-day, the experts are fluttering with delight around the mummified body of the 8-year-old girl, 1800 years old in another sense, which was found in a white sarcophagus near the Via Cassia. And probably most of us could not restrain our curiosity in a relic of an age so far removed. Nearer home, building excavations are constantly revealing remnants of Roman and Early London, with fascinating glimpses of the city and people of those periods. Around Guy's there are relics for which no excavation is needed. But if modern society is having its fill of archaeological entertainment, does it not also have responsibilities? As we no longer build in stone and marble, what will be left for the diggers of 1800 years hence? Not much of contemporary London certainly, and even less of Londoners. Perhaps we should invest now in selected long-stay embalmings, and ask the Fine Arts Commission to approve some modern sarcophagi for the preservation of sample mummies. As a bonus to the eggheads

of posterity, such sarcophagi could then be hidden in structures guaranteed of some permanence. A little subsidence might even be an advantage. In fact, before the plans of the Tower Block are finally defined . . . is there a sarcophagist in the house? Or on it, for that matter.

We would like to congratulate Professor M. A. Rushton, who has been awarded the degree of Doctor of Odontology by the University of Copenhagen. This honorary degree, rarely awarded in Britain, is in respect of his work in dental research.

Honours in a different vein have come to Miss H. O'Neill, student physiotherapist, who has been selected to play left-back for Ireland in the International Hockey Match against Scotland on 29th February. We wish her **luck.**

GUY'S DIARY

FEBRUARY			
EXHIBITION.			*Varicose Veins.*
24th	M.	1.00	Dr. MOYNAHAN. The History of Medicine. *Allergy Through the Ages.*
24th	M.	4.30	Dr. D. C. DEUCHAR. Applied Physiology Lecture. *The Physiological Effect of Exercise.*
25th	T.	1.00	Mr. P. SCHURR. Clinical Lecture. *Intracranial Abscess.*
27th	Th.	1.00	Mr. GLOVER. Clinical Lecture. *Hernia.*
27th	Th.	1.00	Mr. A. R. F. THOMPSON. Dental Clinical Lecture. *Attachments.*
MARCH			
EXHIBITION.			*Haematuria.*
2nd	M.	1.00	Dr. HUTTON. Clinical Lecture. *Emergency Resuscitation.*
2nd	M.	4.30	Dr. D. C. DEUCHAR. Applied Physiology Lecture. *The Circulation in Heart Failure.*
3rd	T.	1.00	Mr. READING. Clinical Lecture. *Some Common Complaints and their Treatment.*
5th	Th.	1.00	Dr. SCOTT. Clinical Lecture. *Diabetic Neuropathy.*
6th	F.	1.00	Mr. BRAIN. Clinical Lecture. *Coarctation of the Aorta.*
9th	M.	1.00	Mr. ROSS. Clinical Lecture. *Surgical Management of Coronary Artery Disease.*
12th	Th.	1.00	Dr. GRIMBLE. Clinical Lecture. *Epidemiology of Gonorrhoea: Facts and Reflections.*
13th	F.	1.00	Professor KNOX. Clinical Lecture.
14th	S.	10.00	Mr. L. OLIVER. Departmental Round. Clinical Theatre.

OBITER DICTUM

Mr. St*mm

"Trying to immobilise a 16 stone man is like putting plaster on a jelly fish."

Leslie George Housden

An Obituary

Leslie George Housden, who died suddenly on December 19th, 1963, was born at Sydenham on October 30th, 1894. He was the sixth member of a family of six boys and two girls, and was educated at the King's School, Canterbury. Leaving school at the age of 17 he became a student at the Royal Veterinary College. Here he showed his promise as a distance runner, good for a mile or longer distance. On one afternoon he won the College half-mile and mile races, and the mile walk, the latter in record time.

A member of the Honourable Artillery Company, he was called up in August, 1914, and served with "B" Battery in Egypt and the Near East. Later he was commissioned with the Royal Field Artillery, and in France was awarded a parchment by the C-in-C Sir Herbert French for "exceptionally gallant conduct and devotion to duty". Wounded, after convalescence, he returned to France for the rest of the war.

Entering Guy's as a medical student he won the Junior Proficiency Prize and passed the Primary F.R.C.S. examination. Qualifying in 1923 with the Conjoint diploma, he became in turn Clinical, A.H.S., O.P.O. H.S., and resident Obstetric Officer. At this time he became President of the Residents. He took the M.B., B.S. in 1925 and was a resident at the Great Ormond Street Children's Hospital. He became M.D. in 1933.

While a student, Leslie Housden took a keen interest in cross-country running and his enthusiasm restarted the United Hospitals' Hare and Hounds after the war, and enabled Guy's to win for several years the Kent-Hughes Cup. A long distance runner of great ability, he was the Hospital's only marathon runner, representing England in the marathon at the Olympic Games at Antwerp in 1920.

A good writer, he was appointed Editor of the *Gazette* in May, 1924, and in 1925 he edited the Bicentenary number, "a special number in commemoration of the Bicentenary of the Hospital and the Centenary of the Medical School". This was a magnificent production of over two hundred pages; a short history by Sir William Hale-White was followed by illustrated accounts of the various departments, societies and clubs of the hospital and its medical school.

Entering general practice in Basingstoke, he devoted his main interest to the health and welfare of children. He was a firm advocate of breast-feeding and was awarded the Sir Charles Hastings clinical prize for his monograph on The Breast-fed Baby in General Practice. He constantly urged the importance of the home and the parents' responsibility in the upbringing of children. He put forward his views in the books he wrote—The Art of Mothercraft, The Parents' Responsibility, Home-life and the Community, The Handbook of Parentcraft, and the Teaching of Parentcraft.

In 1948 he resigned from general practice to become adviser on parentcraft to the Ministry of Health. He strongly advocated the need for parentcraft teaching, especially in respect of juvenile delinquency. He received support in this campaign from the Magistrates' Association and the National Association for Maternity and Child Welfare. Following his advice, the Ministry of Health encouraged parentcraft instruction both in schools and in adult education; parentcraft is now also taught at approved hostels, homes for unmarried mothers and training homes for problem families. The growth of this work is a tribute to his enthusiasm and foresight.

He was also chairman of the foreign relief committee of the Save the Children Fund. In this field he gave unstinted help to children in need. Visiting the Somali Protectorate and later the Sudan, he organised a project which has since saved the lives of many thousands of children. A member of the executive committee of the N.S.P.C.C., in 1955, he wrote his greatest work—The Prevention of Cruelty to Children—which is recognised as the standard treatise on the subject.

Leslie Housden was indeed a beloved physician. His life was devoted to improving the lot of children, all of whom he loved. Many will mourn his passing.

He married Miss Esther Josephine Boyt, one-time Sister of the children's ward at Guy's Hospital. To her, his son and two daughters, we offer our deepest sympathy.

NOTICES

Guy's Hospital Students' Club

Annual General Meeting

Notice is hereby given that the Annual General Meeting of the Students' Club will be held in the Quiet Games Room in the Students' Club on TUESDAY, 10TH MARCH, 1964, at 12.15 p.m.

AGENDA

1. To confirm and sign the Minutes of the last Annual General Meeting.
2. Matters arising from the Minutes.
3. To elect the following Officers for the year 1964-65:
   (a) a President of the Students' Club,
   (b) a Senior Secretary,
   (c) a Senior Treasurer,
   (d) a Student President from among the student representatives on the Council
   (e) a Student Secretary from among the student representatives on the Council.
   (f) a Student Treasurer from among the student representatives on the Council.
4. To receive the Accounts of the Students' Club and of the Bar for the year 1962-63.
5. Any other business.

The 59 Club

The fifth Dinner of the 59 Club is to be held at Ye Olde Cheshire Cheese, Fleet Street, on Friday, 13th March. Those members wishing to attend should inform the Secretary by the 9th March.

C. J. ROWLAND,
Secretary.

30, Kelvin Grove,
Chessington,
Surrey.

NEWINGTON LODGE

The Care of the Aged and Homeless

by RICHARD STURGE

The Family Unit

This second article will describe a reception centre for homeless families, and to try to give an outline of their origins, followed by a brief discussion of the underlying causes of homelessness in London.

Set apart from the old people's home are the quarters for the homeless families. And quarters is the right word. Three gaunt, grey-brick buildings enclosing a square of tarmac, six sad plane trees and a vast patch of mud on to which a mother or older sister now and again darts to retrieve a grubby infant attempting to dig itself through to B.B.C.2. The children playing on the square are at first sight the usual boisterous, healthily pale bunch of kids that might be seen on any local housing estate. Lively and chirpy as they are, one wonders just how much the recent upheaval in their family life has affected their emotional and social stability as well as inevitably interrupting their schooling. Even they, however, are better off than the hundreds of homeless children who have to be separated from their mothers, and even from their brothers and sisters, and taken into children's homes.

The Family Unit

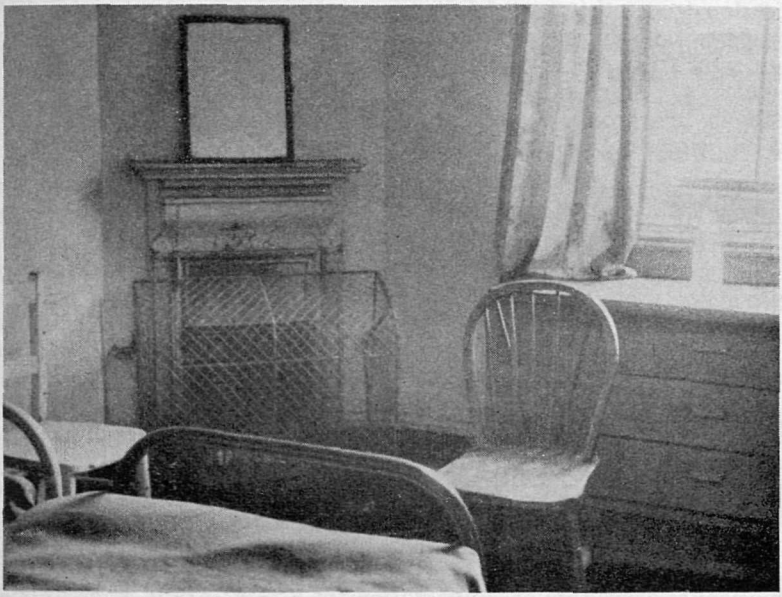
Inside, the atmosphere is less cheerful. Stone stairways with the occasional apologetic patch of brown lino as a reminder of the work-house past, lead up to long corridors from which open the rooms of

the families. Each room contains a whole family and here one generally finds the mother with the younger children, one of whom is often a babe-in-arms. The rooms themselves are warm, sparsely furnished with a battered chest of drawers and a number of barrack room beds and quite clean, the responsibility of the occupants. Some of the rooms are fairly bright with their brickwork freshly painted in light colours, others are strikingly similar to those soon to be unlamented in the College. Close proximity of family to family has meant that husbands cannot be accommodated here. This factor, together with the somewhat rigorous conditions under which they are accommodated, adds to the strain imposed on the mothers and further increases their dependence on the welfare authorities. (It also acts in another more practical way, as will be seen later.) Not unnaturally, many mothers are bitter and uncooperative on arrival, while others, their will sapped by the lost battle to retain a roof over their heads, are apathetic and indifferent. Not only do they need help in their immediate problems but their whole attitude requires re-orientation, and by careful prodding they have to be guided back on the road to self-sufficiency. This is largely the responsibility of the two social-workers and three welfare officers assigned to the family unit.

Newington Lodge occupies a peculiar position in the L.C.C.'s services to the homeless. It functions as an initial reception centre to which homeless families are referred on first application to the welfare department and here their problems are assessed by welfare officers before they are either passed on to alternative accommodation or enabled to return to their original homes. Although the authority for this lies in the same section of the National Assistance Act as that for the care of old people, it was never envisaged that Newington Lodge would continue to perform this dual role after it had helped to cope with the initial post-war rise in homelessness. In fact, in 1961, a converted paint factory in Morning Lane, Hackney, was opened as a new reception centre where husbands also could be accommodated. Unfortunately, this coincided with an increase in the numbers of homeless to over 3,000, double that of two years previously, and so Newington Lodge had to remain open. Interest in the housing situation was at this time high and there was considerable controversy over the 1957 Rent Act and its 1961 amendment. This, coupled with rumblings of discontent from Newington Lodge, from which some families had to be evicted after hearing of the improvements at Morning Lane and refusing to pay their fees, focused the attention of the Press on the reception centres and Newington Lodge in particular. Their attention became all the sharper when the L.C.C. refused them admission. Eventually the Council gave way and the Press broke through to find, in the words of the *Times* correspondent, "Not surprisingly, conditions inside are not nearly so unpleasant as the decision to forbid press visits had led the papers to believe".

Since then Newington Lodge has continued on and off in the limelight, and pages of the warden's visitors' book look more like the autograph book of a small boy who specializes in collecting the signatures of television and newsreel teams.

In keeping with its role as a reception centre the family unit has a high turnover, about 30-40 families a week. At any one time it can accommodate up to 110 families (about 380 women and children) and is usually very nearly, if not completely, full up. The average length of stay is five weeks, but there is wide variation; mothers with husbands in steady jobs often stay only a few nights, while lone mothers and those with large families are the most difficult to place and may stay for many months. In spite of the crowding, epidemics are relatively rare, the chief danger being Sonne dysentery which, when it does occur, is very difficult to eradicate. The last outbreak was brought in by an Irish family and lasted from March to July. Everybody is swabbed on admission and about eight cases a month are sent away and probably account for the steady trickle of children seen at the Evelina and Hither Green.



A typical room in the Family Unit

Fees are graded according to income. If the mother is on National Assistance this goes towards her keep and she retains 13s. 6d. per week and 2s. 6d. for each child. But if the husband is working, the full fee of 54s. plus 20s.-28s. for each child may be paid. This is only a fraction of what it costs to keep a family in Newington Lodge; over £8 per head per week compared with four guineas at Morning Lane. Thus, in addition to its unsuitability from an humanitarian point of view, the family unit is also grossly uneconomic.

The Origins of the Homeless

The role of the reception centre is a wide one and it embraces families whose problems may be other than simply lack of a home. In fact the proportion of "genuine" homeless that pass through

Newington Lodge is comparatively small when set against the large numbers whose personal problems are recognised as being primarily a welfare responsibility. For ease of description the families can be divided into two main groups.

Group I comprises two-thirds of the families that seek welfare assistance ; they provide the bulk of admissions and account for the high turnover in "temporary" accommodation such as Newington Lodge. From here they either find their own accommodation or are directed according to their need, but in general their difficulties are not mainly housing ones, and they do not pass on to the more permanent form of "short-stay" accommodation. They can be further broken down into sub-groups according to their own particular difficulties.

(a) *New to London.* Whole families may arrive on spec., in London from other parts of Britain or Eire in search of work, husbands or co-habitors, and are cared for until the welfare authorities can send them home, preferably as quickly as possible before they take root. Surprisingly, Commonwealth immigrants have featured little in this group, though keener competition for housing appears to be increasing their numbers in Group II.

(b) *Londoners,* who have lost their homes for a variety of reasons and are in need of temporary accommodation while they find somewhere else to live. Domestic friction, which causes about 20 per cent of homelessness, may be a factor here, particularly where the in-laws live in the same house, but to what extent this is a product of overcrowding and is thus basically a housing problem difficult to assess. It is these families who find the separation of husband from wife and the undeniably grim accommodation offered at Newington Lodge less amenable than the other possible alternatives. Consequently the husband redoubles his efforts to find a new home or patch up a quarrel, though it hardly seems likely that he will be able to find a home any better than the one he has just left, when goaded by desperation. In fact, the rate of readmissions of families within one month of leaving temporary accommodation is quite high (at an average of eight families a week) and some parents, rather than face the rigours of welfare accommodation for a second time, have applied to the children's department to take their children, the wife even temporarily "deserting" her husband in order to force the issue. This course, by splitting up the family, is not only detrimental to the children, but may precipitate the final breakdown of an already unstable family union.

(c) *Problem families.* Such families are generally well-meaning and devoted to their children but, owing to defects in upbringing or intellect, are unable to cope with their everyday responsibilities. They are referred, if possible, to special problem family units where they can be instructed in child care, encouraged to save money and guided in the routine of home management.

(d) *Unmarried mothers.* This group is large, comprising one-third of all the mothers in welfare accommodation, and extremely

difficult to place. Lone mother and baby units, run by the L.C.C., can accommodate 125 unmarried mothers but, in spite of the great increase in illegitimate births—as recent figures by the L.C.C.'s Medical Officer of Health have shown—there is little done for them officially, their care being largely in the hands of voluntary organisations.

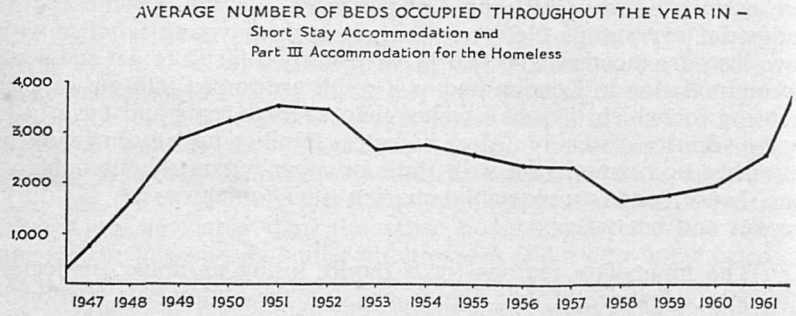
Group II. The remaining one-third of those seeking welfare assistance are the "genuine" homeless and it is they who, after initial reception at Newington Lodge, pass on to the more permanent "short-stay" accommodation. Their disposal is difficult and they represent a problem which was not foreseen and for which provision has only been made in response to an increase in magnitude rather than in anticipation of it.

A recent L.C.C. survey set out to investigate the types of family that are made homeless and the housing conditions they had lived in. It shows that the families in this second group are mainly either London born or have lived in London for at least six years and that many have been rendered homeless through circumstances over which they have had no control. They are by and large legally married couples, aged between 20 and 40, with two to three children. About 10 per cent are on National Assistance and, of the remainder, the husbands are earning between £10 and £12 per week, a wage well below the industrial average of £16 per week. It is these young families with low, insecure incomes who find it particularly difficult to get adequate accommodation in London and as a result are forced into out-of-date housing for which they pay higher than average rents and have little or no security of tenure. Most homeless families have been living in furnished accommodation with three or more separate households in one house, and consequently sharing such amenities as lavatory, cooker and hot water.

The immediate reasons for a family losing its home are legion but only a few are of any significance. Of these, domestic friction is largely accounted for in Group I but must also come into this group as it may really be a symptom of bad, overcrowded housing. The other main reasons given in this group are rent arrears, sale of the house and landlord requiring accommodation. Rent arrears, which accounts for about 10 per cent of homelessness, may be put down to irresponsibility or incompetence in domestic management, but when it is considered that most homeless families have been paying high rents for poor accommodation, a simple inability to pay even a small increase may as well account for their eviction. But of all the causes of homelessness, those related to the selling of the property and the landlord requiring the accommodation are the most revealing and evocative of London's present housing situation. They represent circumstances over which the tenant has had absolutely no control and taken together they jumped from 11 per cent of the families in "short-stay" accommodation in 1951 to 41 per cent in 1961. This remarkable increase coincided with a change in the total number of homeless which, after an initial fall over 1957 to 1,500, while there was a 15 month enforced "standstill" period after the Rent Act was passed

has since risen steadily to reach over 4,800 by the beginning of this month. However, as will be seen later, not all the blame for this increase can be laid at the door of the Rent Act.

The eventual placement of the "genuine" homeless is extremely difficult and puts the L.C.C. between the Scylla of providing expensive and unsatisfactory "short-stay" accommodation and the Charybdis of supplying new houses and thereby risking the storming of County Hall by hordes of betrayed families from the waiting list. Until 1956 the problem hardly existed as most families in "short-stay" accommodation were rehoused in the 400-450 new dwellings allocated annually to the welfare department. Then housing policy changed, with the emphasis on slum clearance and rebuilding rather than building *de novo* and the quota was cut to 50 dwellings annually. The result was unfortunate for the L.C.C.'s welfare department, who then found themselves trying to cope with a problem which it had never been envisaged would be theirs in the first place, namely the alleviation of homelessness caused by a chronic housing shortage. The problem has grown too, as the numbers of homeless have grown and attempts to keep pace with it have only reflected a failure to perceive its long-term nature.


AVERAGE NUMBER OF BEDS OCCUPIED THROUGHOUT THE YEAR IN –
Short Stay Accommodation and
Part III Accommodation for the Homeless
4,000
3,000
2,000
1,000
1947 1948 1949 1950 1951 1952 1953 1954 1955 1956 1957 1958 1959 1960 1961

1947-51. The rising numbers of homeless families can be largely explained by several post-war factors:

Demobilisation;

Resumption of migration to London and the South East;

Increasing numbers of new households requiring separate accommodation; and

Back-log of housing need resulting from standstill of building operations during the war and extensive bomb damage.

1951-57. The decline in numbers of homeless families can possibly be explained by the cumulative effects of new construction by the London County Council and Metropolitan Borough Councils.

1957-58. This fairly sharp decline in number accommodated may be partly accounted for by the "standstill period" from July, 1957, to October, 1958, following the passing of the Rent Act. During this time the Government and property owner's association advised landlords to behave responsibly regarding rents and the teams of tenancies. The Rent Act was a major political issue and was accompanied by a great deal of press publicity.

Note. More recent figures show that the rise in numbers of homeless families in London is continuing. The figure for 1963 *was* 4,417.

Morning Lane was opened in 1961, originally intended as a reception centre to replace Newington Lodge, but has been unable to function as intended and now acts in the initial reception of only the "genuine" homeless before passing them on to a chain of "short-stay" accommodation ranging from converted workhouses in Plumstead and Bow to pre-1914 blocks of flats such as Barnaby Buildings and Chaucer House, close to Guy's. The L.C.C. has recently doubled the welfare department's quota of new dwellings and also buys houses on the open market, but still families may remain in the "short-stay" accommodation for many months or even years.

The Background

The increase in the numbers of the homeless over the past five years cannot be attributed to any single cause, but is rather an expression of a complex social and economic change taking place in London. It is not within the scope of this article to discuss London's housing situation, a situation which is governed by many factors, not the least of which are political, but a brief outline of current trends may be of interest.

Since the war, London's position as the economic and administrative centre of the country has increased out of all proportion both to its importance as a capital city and to the amount of land available. National economic policy demands ever increasing exports, the markets for which lie mainly in the products of the light industries—cars, plastics, electric and electronic equipment—situated in Greater London and the Midlands. Most of these exports are handled by the Port of London and as ties with Europe become closer and the roads and railways modernized, commercial activity in the capital will increase still further. The demand for office space results in high land prices and the building of taller and taller blocks with progressive encroachment on the space available for housing. Swelling of government departments, road improvement, new schools and increased recreational facilities all contribute to this trend. This disproportion between commercial and administrative activity on the one hand and domestic building on the other is resulting in a decrease in the residential population by 15,000 a year and an increase in commuting by about 20,000 a year. Marx attributed social change to economic factors over which man had little or no direct control, and the changes taking place in London at present seem to bear this out. While modernization of the transport system lags behind the rate of new building, the roads and railways become increasingly clogged by commuters trying to get into and out of the capital. The need for exports will continue to generate commercial activity with further increase in commuting. But improved roads and railways will add little relief, for while the commuter may notice an initial improvement, the availability of the capital will only encourage more office building and increase the trade in the docks. And so the vicious spiral will go on unless a reasonable balance is struck between commercial and domestic building, which might eventually find itself priced out of existence and unless active steps are taken to encourage decentralization of Government and big business. A step in the right direction was taken last year with the setting up of a Government agency to assist firms planning to move out of London and to promulgate the disadvantages of staying in.

The consequence of this vastly increased commercial activity is an increase in the number of jobs available in clerical, administrative and professional grades, whereas jobs for manual workers are steadily declining in proportion to this. Increasing competition from the higher paid salaried workers ban the wage earner with a family from all but the least desirable accommodation. Single people, young married couples, students (London is the largest University town in the country) can manage the rents asked for by private landlords. The wage earner is forced into the type of accommodation outlined earlier and, whilst at first he may be able to pay a comparatively high rent for a couple of rooms and shared amenities, as his family grows he needs more space but can afford to pay less. It is then that he may have to turn to the welfare department for help.

Council housing accounts for less than one-third of the domestic accommodation in London and the waiting lists are to all intents closed. Post-war building was initially geared to the acute housing shortage and a high rate of building and rehousing by the L.C.C. was maintained both inside and outside the County of London until 1955, when housing policy changed and emphasis was thenceforward placed on slum clearance with its concomitant obligation to rehouse those thus displaced. This was in accordance with a plan for a brighter, more attractive London, and also an economically more efficient one, with better roads, more schools, open spaces and shopping centres and with an application of density standards relating such services to the number of people in an area.

Thus since 1955 comparatively little completely new housing has been built (to do so now, in the central area at least, would be to risk a lowering of standards) and Government policy has forbidden further L.C.C. building outside the county, which was until 1955 at the rate of 5,000 dwellings per year. The new towns were expected to cope with the surplus population but have been unable to do so, and with the shift of commercial emphasis towards the south have attracted industrial populations in their own right.

Children of the Family Unit

Undoubtedly, redevelopment of existing bad housing will eventually raise the standard of housing in London but when the ratio of new building to demolition is low—over the period 1955-1960 it was below unity with a net loss of 5,000 homes within the county—a severe strain is placed on the existing supply. The change in policy came at a time when there were over 50,000 families in the urgent

need category of the L.C.C.'s waiting list. This list is being dealt with at a rate of 2,000 per year, the other 5,000 dwellings acquired annually by the L.C.C. going to families displaced by its clearance operations. Any new application goes on the "deferred" list, at present standing at around 18,000, and has little prospect of being rehoused for many years hence. This picture does not take into account the building operations of the borough councils, but there a similar situation exists, though in a less chronic form as the bulk of slum clearance is performed by the L.C.C. The solution is simple but not so easy to put into effect. The council is slowly increasing output but is handicapped by the need to maintain the standards of the 1955 plan, the shortage of sites and of the technical staff required.

In addition to slum clearance and other official forms of redevelopment, private developers account for about one-third of all demolitions. In most cases they are under no obligation to rehouse and any new domestic dwellings they do build are well out of the reach of the wage earner. The result is that he falls back on the dwindling stock of privately rented housing which meets the demand by further subdivision, further lowering of amenities and, as more and more houses become "decontrolled", by further rise in rents. This situation, as L.C.C. survey pointed out, can be expected to continue and provide a source of homeless as long as the ratio of new building to demolition remains low. A minor Utopia is thus presented to the unscrupulous landlord about whom so much has recently been heard. The tendency, always a strong one, to regard all landlords as Cyclopian ogres with their single eyes greedily focused on the impoverished tenant's pay packet, has become even more intense of late and is a little unfair on the many landlords who manage their properties well. The fact is that with high overheads and a reasonable profit margin on his property to think of the private landlord has no incentive whatever to provide decent accommodation at a low rent. However, rogues do thrive on the present shortage, charging exorbitant rents for multi-occupied houses, offering no security of tenure with new tenancies, and hastening the process of decontrol by eviction at short notice or victimization of those that stand firm. There are signs, though, that their cream is turning sour. Local authorities are being reminded of the powers they already possess and the Housing Bill at present before Parliament aims to increase these powers. It also aims to increase the pace of improvement to older houses by grants to landlords and by compulsion where necessary, as the Minister of Housing has put it, "Some better carrots and a slight taste of the stick".

The problem of homelessness in London will last for as long as the majority of low-income families will have to depend on a falling stock of private-rented housing for their accommodation. The immediate problem demands an increase in welfare facilities for both groups of the homeless and the provision of more modern and economic temporary accommodation to allow the closure of such institutions as Newington Lodge. Steps in this direction are already under way. The eventual alleviation of the problem depends on an adequate supply of low-rented housing provided by the L.C.C. and

borough councils. This will take a long time to become signficant and can only be accelerated by an increase in total building output. Slum clearance, while a contributory factor to the immediate problem, will eventually result in a high general standard of housing and any reduction in the rate of clearance would only result in delay in attaining this standard. The overall picture of domestic housing in London is one of rising prices forced ever higher by increasing commercial competition, and unless the supply of this housing is guaranteed, the wage-earner, and residence in London will become as much a status symbol as a pedigree herd in Sussex.

I would like to thank the Warden and Matron of Newington Lodge for their hospitality on numerous visits and Dr. Anderson for his help in compiling the article.

REFERENCE

L.C.C. General Purposes Committee Report (No. 3), July, 1962.

NOTICES

Photographic Society

On Thursday, 5th March, Mr. Ken Balch will talk to the Society on the subject of 'Photojournalism and taking pictures to order". Mr. Balch is a freelance photographer and qualified pharmacist with a vast experience in all aspects of photography, and also in layout and design.

We warmly welcome all members of the Hospital, who should find it a very valuable and stimulating evening. It will be at 5.30 p.m. in the Clinical Lecture Theatre, New Guy's House.

J. S. GREGSON,
Hon. Secretary.

Catholic Society

The next meeting of the Catholic Society will be on Wednesday, 26th February, in the Upper Lounge of the Students' Club. The speaker will be Dr. P. Brown, and his topic will be *"The Infertile Period and Catholic Teaching"*. Professor D. J. Anderson will be in the chair. Coffee is provided, and questions welcomed. The meeting is open to everyone.

P. A. SIMS,
Hon. Secretary.

Guy's Science Club

The next meeting of the Science Club will be held in the Medical School Committee Room (New Pathology Block) on Wednesday, 11th March, at 4.45 p.m., when Dr. W. J. Tulley, of the Dental Department, will speak on "Longitudinal Studies of Facial Growth".

Tea will be served in the staff common room at 4.30 p.m., and a cordial invitation is extended to all members of the Teaching and Research Staffs of the Hospital and Schools.

MARJORIE J. HILL,
Honorary Secretary.

Exhibit on the Teaching of Dental Surgery at Guy's Hospital

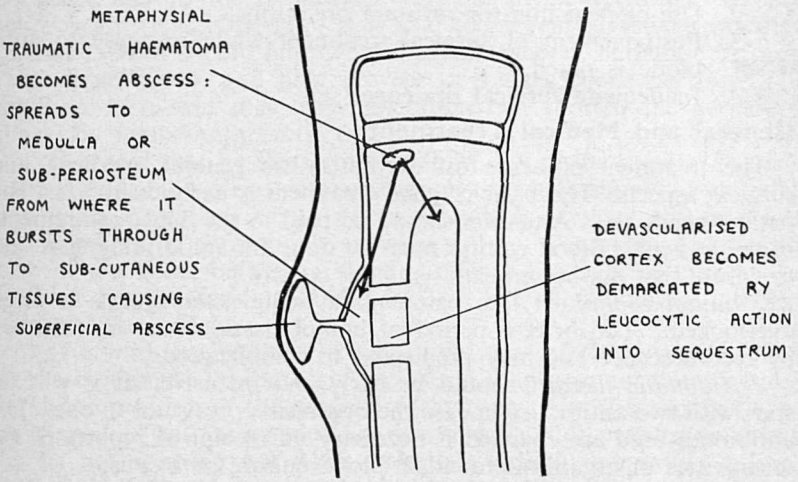
The above exhibit will be displayed on the top floor of the Dental Department at the Clinical Meeting, to be held on Saturday, 7th March, 1964, and will remain on view until 21st March.

The Treatment of Acute Osteomyelitis

JULIET PIKE

In May 1962, about the time a child was in the Evelina Hospital with osteomyelitis, a paper (Harris, 1962) appeared in the British Medical Journal on "The Place of Surgery in Early Stages of Acute Osteomyelitis. This led to letters putting forward various individuals' opinions, some urging the value of early surgery and other letters urging that the treatment of the early stages by antibiotics is efficient and operation in the earliest days is unnecessary and can even be meddlesome. It seems worthwhile to attempt a review of the treatment of acute osteomyelitis.

Osteomyelitis is the result of a bacteraemia which localizes in bone, the commonest site being the juxta-epiphyseal region of the metaphysis of a long bone. The organism, usually staphylococcus aureus may get into the blood stream from any infected lesion. It is thought by some that the micro-organisms commonly settle in a minute metaphysial haematoma, the result of slight injury to the metaphysis.



The causative organism is most commonly a coagulase-positive staphylococcus, many varieties of which are resistant to penicillin. In a series of 328 cases, the organisms in 77 occurring between 1944 and 1950 were sensitive; but in 1951 a penicillin-resistant staphylococcus emerged and became increasingly predominant over the next 10 years (Gilmour, 1962). In 50 per cent of cases blood culture is sterile.

Pus from surgical drainage may be the only means of demonstrating the organism and it also provides a sensitivity report more quickly than does simultaneous blood culture (Harris, 1962). In a review of sensitivities of organisms in 76 cases, only 5 were insensitive to methicillin (Celbenin), all of these being gram-negative bacilli sensitive to streptomycin. A combination of methicillin and streptomycin given as early as possible should therefore be effective antibiotic therapy (Blockey and Mann, 1962); or penicillin can be tried in milder cases and a suitable mixture of antibiotics in more serious septicaemic illness (Pappworth, 1962). Routine use of methicillin before identifying the particular organism present and its sensitivities is undesirable because :—

1. The activity of methicillin against staphylococci is only 1/10th that of penicillin.
2. After a few days methicillin may mask signs so that it is difficult to decide whether infection is adequately controlled or a collection of pus has formed.
3. An initial good response may tempt one to continue methicillin alone too long and if surgery is then indicated, discovery of the causative organism and its sensitivities is made more difficult (Harris, 1962).

The *complications* of acute osteomyelitis include chronic bone infection with discharging sinus or obvious sequestrum formation. These may be due to:—

1. Incorrect diagnosis delaying effective antibiotic and other treatment.
2. Use of penicillin for resistant organisms.
3. Postponement of surgical treatment while response to antibiotic is noted.
4. Inadequate surgical drainage.

General and Medical Treatment

The treatment of acute osteomyelitis has general, medical and surgical aspects. The basis of good treatment is early diagnosis. The patient needs rest. Attention should be paid to the fluid requirements of the patient. Blood culture must be done for initial diagnosis and to ensure that the bacteraemia is under control.

Immobilisation in the treatment of acute osteomyelitis is often overlooked. Too brief a period of immobilisation may be followed by recrudescence and may predispose to complications.

Antibiotic therapy should be early and intensive. It is wise to start with two antibiotics in case the organism is resistant to one. The antibiotics used are changed if necessary on receipt of reports of the sensitivities of organisms found in blood culture or in pus.

Antibiotics have greatly reduced the mortality of osteomyelitis. Antibiotics by themselves can cure if they are given

1. Within the first three days of the illness;
2. In adequate dosage (Trueta, 1962);
3. For long enough (Harris, 1962);

and provided that there is

4. No abscess;
5. No necrotic bone.

Even when patients have been on massive doses of penicillin, culture of pus from marrow abscesses may yield profuse growths of organisms, usually staphylococcus aureus, long after blood cultures have been negative. The patients survive and look healthy but the bone infection goes on to chronicity with recurrent flare-ups (Shandling, 1960).

Prolonged antibiotic therapy is important. Early cessation of antibiotic therapy only too frequently is followed by recrudescence or complications.

Antibiotic treatment and immobilisation of the affected part will be continued until there are no clinical signs of activity and two successive ESR readings have been below 20 mm. in the first hour (Louw and Shandling, 1961).

Operative Treatment

Use of antibiotics is an accepted form of treatment though argument continues over details. The exact way to use surgery is much more controversial; whether early drainage both of subperiosteal and of intra-medullary spaces is wise is being widely discussed. Three procedures must be considered:—

(1) Aspiration.
(2) Open drainage of abscess.
(3) Drilling of bone.

Early surgical treatment may confirm the diagnosis and lead to isolation of the causative organism but these are not, by themselves, adequate reasons for submitting the child to an operation. It may relieve pain (Harris, 1962). It is said to prevent or reduce vascular damage, which should improve the effectiveness of antibiotic therapy (Shandling, 1960), and also prevent or reduce bone necrosis. In addition it is said that early operation can shorten the period of illness by removing necrotic tissue.

It is said that by the second or third day of the disease, pus has formed under the periosteum, cutting off the blood supply of the bone and in the medullary cavity where it is under pressure and increases the likelihood of thrombosis, and that early and complete decompression of the bone, before its blood supply is interrupted, prevents or reduces bone necrosis (Harris, 1962). However, opinions on this matter differ widely.

It is said that because of the special type of blood supply found in the metaphysis, thrombosis occurs early and cannot be influenced by decompression of the medullary cavity once local symptoms have developed. That intramedullary pus is not under pressure is shown by its not spurting out when holes are drilled; nor could a large medullary cavity be adequately decompressed by drilling a few holes in the cortex, and in any case such holes must rapidly close with blood clot (Pappworth, 1962). It is also suggested that osteomyelitis in the early days resembles cellulitis and that surgery in an acutely inflamed region of bone, which has not yet reached a point of abscess or sequestrum formation is a risky procedure which becomes possible (if desirable) with full antibiotic cover. It is also pointed out that pus formation in bone is not necessarily intra-medullary; if the

infection is near the surface of the bone it will track outwards to emerge below the periosteum and may never reach the medullary cavity, that in the early stages there is no method of identifying the direction of spread, and that the formation of sequestrum is rapid and not by stages. For such reasons, the early boring of holes is pointless (Gordon, 1962). The cortical sequestration from lifting of the periosteum added to the initial infarction of the metaphysial sinusoids, can always be prevented by an early periosteal drainage, which is followed by rapid re-attachment of the periosteum and revascularization of the cortex (Trueta, 1962).

Arguments are put forward for open drainage as compared with percutaneous aspiration of the sub-periosteal space; it is said to be more complete, efficient even if pus is too thick to go along even a wide-bore needle, avoids repeated operative procedures (Harris, 1962) and ensures prevention of laying down of an involucrum by periosteum separated from the cortex.

Aspiration is of value in osteomyelitis of the spine where an abscess commonly presents superficially and can be aspirated without difficulty, the aim being to obtain pus to identify the organism rather than to relieve tension. Empirically osteomyelitis of the spine seems different from osteomyelitis in long bones; less complications result from the conservative treatment of spinal osteomyelitis than from surgical treatment of other types of osteomyelitis (Pappworth, 1962; Browne, 1962).

Osteomyelitis of the spine and long bones are not different diseases but their behaviour differs because of differences in anatomy. Spongy bones, e.g., vertebrae and pelvis, have the following features, a thin cortex, short Volkmann's canals, liberal arterial supply and copious venous drainage. Cortical sequestration is rare and abscesses in a muscle plane are commoner and are aspirated primarily to let out the pus and secondly to give an opportunity to obtain the causative organism. Even here, incision of an abscess may occasionally be required (Subrahmany, 1962).

Conclusion on Surgical Treatment

This is a well-known, serious, fairly common illness and its treatment seems a suitable subject for research. This should pay special attention to the indications for and results of early surgery and its variants. As any one centre will have few cases, Guy's should organise a regional research plan with the co-operation of paediatricians and orthopaedic surgeons in many hospitals. Then it might be clearer what is the best way of using surgery. Meanwhile, it seems best to aim at very early diagnosis, early and prolonged intensive antibiotic therapy and to ask the orthopaedic surgeon to see the case as early as possible so that he can operate immediately or later as he thinks best. It seems that if the case is diagnosed within the first three days, a trial of immobilization and intensive antibiotic therapy is proper, with careful observation of the general and local state of the patient.

CASE HISTORY

Rosalyn P. is a schoolgirl of eleven years. She was admitted to the Evelina Children's Hospital on 28.9.62. She had taken the eleven plus examination in the summer and her father thought that she might be a little "run-down".

Presentation

Two weeks prior to admission she had a mild sore throat; and then three days before coming in, she complained of a constant pain in the left hip, thigh and knee. This did not prevent her walking, but was relieved by rest, and by keeping hip and knee flexed. Extension and walking made the pain worse. At this time, salicylates eased the pain. The next day her mother thought that she had a temperature and she spent the day in bed. The following day her pain was worse; her temperature was higher; she felt nauseated and vomited twice. At no time did she have pain anywhere else nor did she have a rash or a sore throat.

On admission, she had a pyrexia of 104°F., and was obviously ill. She was flushed and hot; but not dyspnoeic or cyanosed. On examination of her cardiovascular system, she had a tachycardia commensurate with her pyrexia; the apex beat was not displaced outwards. The heart sounds were normal but a Grade I systolic ejection murmur was heard over both aortic and mitral areas. No other abnormality was found except in her left leg. Her pain seemed localised to an area over the hip joint. This area and particularly the greater trochanter were very tender. Neither the hip nor knee was swollen. There was limitation of hip movement; particularly abduction and internal rotation. Flexion caused pain at the front of the thigh and extension to 10° caused pain at the back of the left knee.

She was treated for osteomyelitis of the left femur, though the differential diagnosis included acute rheumatism, mild upper respiratory tract infection (the fauces were injected and the ear drums were dull), fever associated with traumatic injury to the left leg (she had fallen on her left leg in the gym three days ago) and "observation hip".

Blood cultures were taken on the evening of admission and she was then put on I.M. crystalline penicillin 300,000 units 4 hourly. The white cell count was 10,000 cells per cu.mm. 90 per cent of these were polymorphs. The urine was normal. A skin swab grew scanty Staph. aureus; the culture being insufficient for sensitivies. The Widal Test was done and this was positive for Brucella antibodies; at the time this was thought to be an artefact—and it was not confirmed. The throat swab grew only non-pathogens. The left hip was X-rayed on the day of admission: no abnormality was demonstrated.

Progress

Her condition did not respond to the penicillin, and on the fifth day there was tenderness in the left buttock, so she was seen by the orthopaedic surgeon, and that evening the neck of the femur was drained under general anaesthesia; the periosteum was scraped off the femoral neck easily, leaving roughened bone, and two drill holes were made releasing pus under pressure. Swabs were taken and the incision closed with interrupted sutures. It was decided to continue with the penicillin until sensitivities were available; and to nurse her leg in a plaster spica under traction. On the sixth day the result of the blood culture came back: coagulase-positive Staph. aureus, insensitive to penicillin, but sensitive to celbenin. This was confirmed by the culture from the wound swab.

As soon as the methicillin (Celbenin) was started, her condition began to improve; her temperature came down to 100° and was normal by the twelfth day. The dosage was 1,000 mg. 6 hourly. The hip was again X-rayed on the eleventh day; it showed that the femoral neck had been drilled; and except for a little irregularity of the upper surface of the greater trochanter, there were no signs of osteomyelitis nor local osteoporosis. Rosalyn's recovery was comparatively straight forward. The sutures were removed ten days after operation: there was a small discharge, not obviously purulent. The following day (the eighteenth from admission) she was taken off traction and allowed to try walking. After her temperature had been normal for three days, she was taken off the Methicillin (Celbenin) and put on oral ampicillin (Penbritin) 250 mg. 6 hourly. She was discharged well and symptom-free on the twenty-sixth day.

Follow-up

At out-patients a month later, she seemed well but a further X-ray showed slight periosteal reaction on the anterior aspect of the upper femoral shaft; consequently she was advised to limit her activity for three months. Her systolic ejection murmur had disappeared.

On February 26th, 1963, she was seen at out-patients and she had no symptoms or signs—she was discharged.

I should like to thank Dr. R. C. MacKeith for his help in preparing this article which has been written as a result of studying one of his patients. I should also like to thank Mr. R. S. Lawrie and Mr. W. A. Crabbe for their helpful criticisms, and Mr. J. N. Davis for writing the case history.

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PUPILS' PHYSICAL SOCIETY

The Pupils' Physical Society meeting with Bart's, on Monday 30th January, was held in the Preclinical Classroom after a frantic migration from a room in New Guy's House which had become double booked at the last moment.

A formidable quiz had been arranged. The first half, by Hugh Tunstall-Pedoe, was a collection of pictorial questions, and most people seemed to feel that they ought to have known the answers, although a good deal of thought was necessary. Alan Knell had contrived to produce a very complicated second half to the quiz, with everything from an E.C.G. to a pile of bacterial plates. The bacterial cultures seemed to be familiar, but few people were able to remember which organism grew on what plate. One person was usually able to answer each question, but few were able to answer more than half the questions altogether. A Guy's man won the book token prize.

Chris Padfield and Peter Warren had extracted all the interesting patients from all parts of the Hospital, and a number of fascinating clinical conditions was assembled for us.

The quiz and the clinical section seemed to be much enjoyed by all.

Hugh Tunstall-Pedoe and his brother Dan, then presented a case for Guy's and Bart's respectively. The Bart's men did very well to guess the Guy's case, which was a combination of a carcinoid tumour and staphylococcal enteritis. The case had been well prepared, and Dr. Missen had taken enormous trouble to produce some beautiful slides to illustrate the condition.

The Guy's attempt to diagnose the Bart's case was finally successful, and it turned out to be an atypial case of Gaucher's disease.

The meeting was a great success and was attended by a large number of students from both hospitals.

ADRIAN UPTON

Blues Dinner, 1964

The Blues Dinner is to be held on Thursday, 28th May, at the Kensington Palace Hotel. Would any Old Blues who have left the Hospital and who would like to come please inform me, c/o Front Lodge, by 21st March.

T. J. HUINS.
Hon. Secretary Blues Committee.

CORRESPONDENCE

T. B. Layton

SIR, At the outbreak of the 1914-18 war, Layton was a serving Territorial Officer in Command of the Medical Unit of London University, O.T.C. He was sent almost immediately to the Territorial headquarters in Chelsea and was given recruits of very assorted types to be turned into a Field Ambulance.

When I came under his command early in 1915 he had been moved to Dorking. There and elsewhere training was carried on under very considerable difficulties.

In June 1916, the Field Ambulance, which by then had become the 2/4th London Field Ambulance, went to France with the 60th Division, and had six months somewhat static trench warfare near the Vimy Ridge. It was during this period that Layton produced a plan for the rapid collection and evacuation of casualties with abdominal wounds. It was the first of many fertile ideas for the better treatment of casualties.

In December 1916, the Division was sent to the Salonica Force and almost immediately, in January 1917, a brigade with the Field Ambulance, was landed at the foot of Mount Olympus near a little town called Katerini. It was here that an episode proved the value of Layton's training once again. A village girl had a large appendicular abscess on which he operated in the one downstairs room of her fathers' house. She was nursed by two of the nursing orderlies from the Field Ambulance and made a complete recovery.

Later after some service on the front in Macedonia the Division was moved to Palestine, and was heavily involved in the advance from Gaza to Jerusalem where Layton took over the Russian Hospital in December 1917. After slow advancing North came the raids East of the Jordan, in March and May 1918, to Salt Amman and the Hedjaz railway.

The evacuation of casualties back to the Main Dressing Station on the site of old Jericho was slow and difficult. Layton had somehow procured some beds. Surgery, which usually was provided at the C.C.S., was carried out at the Main Dressing Station by two consultants, temporarily attached, and, as on previous occasions, the ambulance personnel formed the theatre teams.

In the summer, later in 1918, when most of the British troops had been sent to France, the Ambulance was disbanded. Layton reverted to his permanent rank of Captain and was posted to a hospital in Alexandria.

Layton's career in the Army as a commanding officer was one that could not have been equalled by many. He was allotted a number of nondescript recruits and trained them into a first class medical unit which he commanded without a break until it was disbanded well over three years later.

Layton loved his men. He bullied them and at intervals they cursed him, but they loved him as well. Those years must have been among the best and happiest in his life.

The Field Ambulance has kept together ever since the end of the war, with a Reunion on the Anniversary of the Capture of Jerusalem by the 60th Division.

The 39th Reunion was held in October 1963. Layton insisted on presiding although it was obvious he was a very sick man. There were 40 present.

Yours, etc.,

G. B. PRITCHARD.

81, Harley Street,
London, W.1.

SIR, "Tubby" Layton's death breaks a link with historical figures in medicine and surgery of another age. The many who now miss him will recall his larger-than-life presence and voice and personality impressing his listeners with reminiscences of physicians and surgeons who are now legendary.

I knew him professionally and socially for a quarter of a century, and whenever he spoke or wrote to me there was something to learn or something to make one think.

The quality and integrity of his work and teaching at Guy's and in the fever hospitals will be long remembered.

When I was a student at Guy's, before the war, there was a play produced in London called "Glorious Morning", by Norman Macowan, which dealt with the activities of a so-called "Supreme Council" in a European village. The character of the Mayor was under discussion when, brushing aside the political arguments, an old farmer spoke, with a voice of thunder, lines which I should like set down in memory of my old teacher:

"He was a good man. I need no Committee to tell me that."

Yours, etc.,

NORMAN A. PUNT

57, Egerton Crescent,
Kensington, S.W.3.

Who's Who

SIR, Am I to understand, having peered through the veil of verbiage in Passim (8/2/64) and at the artistry on page 72 that henceforth the Sub-Dean will appear wearing a lapel badge inscribed F - - - - W - - - - ?

I trust that dental students will manage to make themselves badges of an interesting nature . . .

Can one suggest a fourth source of opposition, simply that it is ludicrous.

I have the honour to be, Sir,
Your most obedient servant,

G. V. CRINE.

Hinton House,
5, Milton Road,
Weston-Super-Mare.

The Rugby Club Ball

SIR, May we through the courtesy of your columns, draw the attention of all past and present members of the Hospital to the Rugby Club Ball. It is being held on Wednesday, 18th March, at Quaglino's, reception 8.30. Tickets may be obtained from the undermentioned.

Yours, etc.,

N. KNOTT
W. DRAGE
D. GOURLEY

NOTICE

Annual Clinical Meeting, 7th March, 1964

Abbreviated programme

Morning Session (10 a.m.—12 noon)

Anatomy Lecture Theatre, Medical School.

11.45 a.m. Lecture: African Excursions. Professor R. D. Emslie.

Theatres Nos. 7 and 8 (*First Floor, New Guy's House*).

Operations commencing at 10 a.m.

There will be *Demonstrations and Displays* in all the Departments of the School.

Afternoon Session (2 p.m.—4 p.m.)

Second Floor, Dental Department.
2.00 p.m. Clinical cases will be shown by members of the Visiting Dental Staff.

Dental Lecture Theatre.
2.30 p.m. Lecture: Cases You Have Sent. Mr. R. A. Cawson.

There will be *Demonstrations and Displays* in all the Departments of the School.

Tea will be served on the First Floor of the Dental Department at 3.30 p.m.

Programmes giving full details will be available at the Clinical Meeting.

SPORT

RUGBY FOOTBALL

In the quarter-final against Barts, Guy's side, depleted as it was by examinations, played just as well as necessary to proceed into the semi-final. A try by Allen and two excellent kicks by Morris were adequate to enable Guy's to meet St. Thomas's. It was noticeable that supporters were not present in great numbers and were unusually tranquil. This seemed a pity when one remembers the buoyant enthusiasm of three years ago. Players do respond and this year's side is playing competent, entertaining football that deserves more and louder recognition.

In the match against Old Askeans the players showed a reaction from the Cup tie, but at Aberavon they showed attractive form. Once the curiosities of playing under lights was mastered, an exciting and all-action second-half ensued.

Regular supporters will welcome the news of Mr. E. J. Chater's massive St. Bernard's triumph at Crufts where Snowranger Ambassador (alias Henry) won the Novices Cup from 25 other competitors. It is hoped that this will be a happy omen to the cup matches this season.

ASSOCIATION FOOTBALL

In the semi-final of the University Cup Guy's faced Imperial who fielded seven members of the London University—the best soccer University in the country. In the circumstances the side did well to be level until 15 minutes of the second half, but the greater experience told. However, a 2—0 defeat spoke volumes for Guy's quality of play and the University coach, a former Spurs player has arranged a game against Sidonians on 22nd February.

In the semi-final of the Argonaut Trophy, six Guy's players represented United Hospitals against Icarus at Wolverhampton in a 3—0 defeat.

The next competition of interest is the Hospital Cup semi-final in which Guy's meet St. Thomas's (and not London, as previously mentioned) on Wednesday, 26th February.

HOCKEY

The club have done well to move to the Final of the Hospital Cup for the first time for three years. In the quarter-final, Middlesex were beaten 1—0, after extra time, following a replay, and in the semi-final, London were beaten by a similar score. Good, vociferous support lent much aid to the performance in the last match and would be greatly appreciated in the final against St. Thomas's.

WATER POLO

The team are finding their entry into the University League a taxing and challenging experience, but the demands of swimming in larger pools are beginning to be met and results more encouraging. This was shown in the friendly against B.E.A., who were overcome by 11 goals to 3. Even so, much was learned, particularly that chances must not be wasted by retaining the ball too long once possession is gained.

Reports and Results

RUGBY FOOTBALL

GUY'S v. ST. BART'S

Hospita!s' Cup Quarter-Final

At Richmond Athletic Ground.

4th February, 1964.

Result: won 9—0

The Hospital have done well in club games this season and so we have entered this season's competition with high hopes of success. In this match, we were deprived of the services of Biggs and Myall who were engaged in examinations and they were replaced by Thomas and Morris who had played the previous Saturday against Coventry.

The match itself was not a good one, at least for the spectator, and it was clear from the first whistle that the tactics were to keep the ball close, rely on the kicking qualities of Edgar at fly half and concentrate and capitalise

on the mistakes made by the opposition. In this, the Hospital were successful and one felt throughout the match that the team always had the particular situation well in hand.

Bart's began the game with a great flourish and in fact it was 15 minutes before Guy's penetrated into enemy territory. However, within a few minutes Guy's scored a good opportunist try. A mis-directed kick by the Bart's fly half was gratefully accepted by Wright who burst through the defence and when challenged by the full back he kicked ahead and Allen won a thrilling race for the touchdown. Morris failed to convert. Guy's, at this stage, were looking dangerous and some good forward rushes, led by Baker and Brown, and good tactical kicking by Edgar, had the Bart's defence in trouble. Midway through the half Bart's were penalised and Morris landed a beautiful goal from 30 yards and ten minutes later the same player repeated the performance, this time from 35 yards and at an angle. Play alternated from then on and in fact neither side looked like scoring and at half time Guy's were leading by a comfortable nine points.

The second half produced no scoring and it was characterised by an all out effort by Bart's who gained a lot of possession from the set scrums and lineouts. All their efforts, however, were thwarted by the failure of their half backs to get their threequarter line moving satisfactorily and more particularly by a very resolute Guy's defence. During the half, Kerner made a couple of dangerous runs and Wright once again made an interception which should have produced a score had he passed to either side of him instead of kicking.

Throughout the match, the Guy's forwards were well led by Baker and although surprisingly beaten in the set scrums and lineouts for a long period in the second half, they made up for it by good covering and were faster on to the loose ball than their opponents. Hendrick did a sound job and Brown was as usual in the thick of it. MacGregor played a sensible game at scrum half, but both he and Edgar kicked far too much, particularly in the first half when more points could well have accrued from bringing our threequarters into the game. Kerner, on the few occasions he got the ball, spelt danger for the opposition and Wright took his one chance in the first half beautifully. Morris fielded and kicked admirably in his first cup game and is obviously a danger to any side with his accurate place kicking.

Guy's are now through to the semi-final where they meet St. Thomas's in what should prove to be an interesting game.

D. CARROLL

Team: Morris, A. M.; Thomas, J. C., Wright, C. J., Allan, A. J., Kerner, R., Edgar, J. A., Macgregor, H. W., Davies, J.; Price, E. S., Stansfield, R., Peace, P. K., Hartley, D., Brown, R., Hendrick, D., Baker, I. A. (Capt.).

GUY'S v. OLD ASKEANS

At H.O.P. 8th February, 1964.

Result: lost 3—8

The limitations of the Guy's back division were shown up when Guy's were defeated by an enthusiastic Old Boys' side.

The Guy's forwards gave their backs enough of the ball to win the game, both from the set scrums and the lineouts, where Hartly played extremely well.

However, the backs frittered away chance after chance. They either kicked to deeply or when the centres ran with the ball, they went across field, instead of running straight. The result was that the wingers were crowded out, and usually received man and ball simultaneously. Thus Guy's, instead of progressing forwards, usually lost ground.

The Old Boys' went ahead inside five minutes, when slack marking by the centres allowed the Old Boys' centres to thrust deep into Guy's territory. The cross kick looked covered but hesitancy by the Guy's defence in front of their own posts lead to a try that was converted. Morris kicked a penalty goal for Guy's and missed two others. A scrummage infringement led to the Old Boys' going further ahead with a penalty goal, and they led 8—3 at half time.

In the second half, though Guy's had a great deal of the ball they never looked like scoring a try.

JOHN ONI-ORISAN

Team: A. M. Morris; D. A. Briggs, C. J. Wright, A. J. Allan, R. Kerner; J. A. Edgar, H. W. Macgregor; J. E. Davies, E. S. Price, R. Stansfield, D. Hartly, A. J. Kingdon, R. Brown, D. Hendrick, I. A. Baker (Capt.).

GUY'S v. ABERAVON

At Aberavon. 14th February, 1964.

Result: lost 6—27

This, the first match Guy's have played under floodlights, was played on the eve of the last All-Blacks game of their tour of this country. Players freely admit that playing under lights naturally imposes certain difficulties and it was noticeable in this game that as the match progressed, so did Guy's confidence and ability.

Aberavon were quickly on the rampage, helped by an immaculate display by O'Connor, at scrum-half, and supported by fast running by centres and fly half; and quickly accumulated points. At this stage Guy's marking was particularly slack at the back of the lineout and the centres were finding it difficult to contact quick jinking and thinking opponents. On the credit side Peace was jumping with rare skill and success and Price was easily holding his own, but prolonged pressure told and at half-time Aberavon led by eighteen points to nil.

The second half started more promisingly and Morris was only just short with a 45 yard penalty. Continued pressure culminated in a

scrum infringement resulting in a penalty which Morris converted with a good kick from wide out on the 25. This inspired Morris and the whole side. Biggs was unfortunate to be tackled just short of the corner flag, and good movements involving the whole back division followed with great rapidity. Then the home side scored twice and Morris replied with a superb 45 yard penalty kick. Aberavon concluded the scoring with a fine "All-Black" like movement ranging across the field and back again.

Any match played by the Hospital four days before the Hospital Cup semi-final could lead to a certain amount of inhibition. This was not evident in this match and Guy's were as good as the score suggests in the second half (6—9). Of the forwards, Baker was omnipresent, the props, Davies and Stanfield, obviously revelled in playing in their own country and Brown overcame the disadvantage of being refereed by his old Latin master. MacGregor continued to show the improvement apparent in every match, while the remaining outsides showed increasing vigour, determination and skill as the game progressed.

Unquestionably a good prelude to the following day. Aberavon players and supporters welcomed the open-play and Guy's "hwyl" in the second half was received with obvious enjoyment.

ASSOCIATION FOOTBALL

GUY'S v. IMPERIAL COLLEGE
University Cup Semi-final

At Berrylands. 8th February, 1964.

Result: lost 0—2

It has been said that whatever makes a successful Cup side, it usually bears little relationship to past record and reputation. Imperial College have won this competition for the last six years, their side contained seven University players, and not unnaturally feeling among most university colleges was that it was about time they came unstuck. In mentally sizing up the opposition, as teams are wont to do before important matches, Guy's put their main hope on the fact that they had played throughout the season as a regular team and that the opposition would be unsettled by the introduction of representative players to their league side.

Up to half-time it was anybody's game. Imperial had perhaps more possession of the ball, but Guy's had created more clear-cut chances. One of these, a ball sent down the middle for Cutler to hit first time went soaring wide of the post. Either they go in or they don't, a philosophical point maybe, but so seldom do they when you really need them to.

The first goal turned out to be the vital one. A delicate chip over the heads of the Guy's defence found the centre-forward unmarked and it was no difficult matter to hit the ball past Parry, who up to then and indeed throughout the whole game played as well as he did in his prime. From then on, Imperial mounted attack after attack, and the Guy's defence did well to keep the score down to two. Of the forwards, Shepherd alone showed any sense of urgency; in defence, Davies, W., played very soundly and Parry gave a solid all-round performance.

Some lessons to be learnt from the game are that wingers must get the ball across before goals can be scored and that players should condition themselves both mentally and physically before a match. It never augurs well when players arrive five minutes before the kick-off, however valid the excuse may be. Despite losing, however, consolation can be gained in that the London University coach was apparently sufficiently impressed to offer Guy's a fixture with the Sidonians—the University 2nd XI.

JOHN POWELL-JACKSON

HOCKEY

GUY'S v. MIDDLESEX HOSPITAL
2nd Round Inter-Hospitals' Cup—Replay

Away 2nd February, 1964.

Result: won 1—0 (after extra time)

After the smallness of the Oxford pitch, the Guy's team found themselves playing on a large pitch against a very determined team. The game started off at a tremendous pace and the small crowd of spectators settled down to watch an interesting tussle between two very evenly matched sides. With good hockey being played by both teams the tension began to build up as to which team would crack first. Both defences played well and it was obvious that there wouldn't be many goals scored and that the side to score first would probably win. The tension continued to build up with both sets of spectators cheering their team on. Each side had enough short corners to win the match but as it turned out they only added to the "nail-biting" excitement of the game. With no score at full time extra time began with everyone's nerves almost at breaking point. The Guy's team, steadied by their more experienced players, began pressing the Middlesex goal and late in the first half of extra time Lewis put the Guy's team into the lead by somehow putting the ball into the net from an almost impossible position. The Guy's fans erupted with relief but it wasn't until the final whistle went that the result lost its element of doubt.

DAVID LOADER

Team: A. Hirst D. Loader (Capt.), K. Haynes, J. Crafts, C. Brooks, J. Sedgwick, R. Carruthers, R. Strickland, M. Appleby, P. Bennett, M Lewis.

GUY'S v. THE LONDON HOSPITAL
Inter-Hospitals' Cup Semi-final

Away. 12th February, 1964.

Result: won 1—0

After a disappointing drawn game on the Saturday against a poor Westminster Bank side, the Guy's team travelled up to play the London Hospital at Hale End. A small group of supporters accompanied the team, and their encouragement and support was very welcome. The Guy's defence was tested in the opening stages of the game by a forward line centred around Tim Lawson the Scottish International playing at inside right. He caused many anxious moments when he created openings in the Guy's defence but fortunately the other forwards weren't able to take advantage of these scoring chances. The Lawson threat was quickly stifled by Haynes and Sedgwick, helped by Bennett at inside forward tackling back. The Guy's team settled down and moved the ball around well. However, they came upon another stumbling block in the London Hospital defence. This took the form of Chris Ward, the Essex County player, at left full back. Time and time again he got his team out of trouble by his quick reactions and brilliant anticipation and tackling. Not surprisingly, when eventually Guy's scored, the goal came from the opposite side of the field. Sedgwick took a free hit just outside the circle, hitting the ball hard across the goal. Appleby, at centre forward, threw himself forward, stick extended and the ball was in the back of the net. Appleby has scored many goals for Guy's this season but this one was perhaps his best and certainly he couldn't have scored it at a better moment. From this stage the Guy's team never looked like loosing and were much the more balanced side.

Hirst played well in goal and late in the second half, when Lawson for once managed to

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break loose, he saved what looked to be an almost certain equaliser at full stretch deflecting the ball with his stick.

Time ran out for the London and when the final whistle went Guy s emerged worthy victors.

Team: A. Hirst; D. Loader (Capt.), K. Haynes; J. Crafts, C. Brooks, J. Sedgwick; R. Carruthers, R. Stickland, M. Appleby, P. Bennett, P. Liddiard.

The final is on February 26th, against St. Thomas's Hospital on St. Mary's ground at Teddington It is hoped to provide a coach for supporters.

DAVID LOADER

CROSS COUNTRY

The season will not end for some weeks, but the programme has been building up steadily, culminating in the Inter-Hospitals' Cup—the Kent Hughes—held last Saturday. There were no surprises in this race but a steady season of racing and some circuit training gave Guy's a comfortable third place, although well behind the holders, St. Bartholomews. The second team were sixth overall and the first 'B' team home.

In the United Hospitals' Club Handicap, the first event after the Christmas festivities, D. Cooper ran a well judged race to win the tankard. Visibility was down to about 20 yards and he ran off into the fog at the staggered start to be seen only once more before returning to the finishing line About 12 other people claim to have found the right course. A. Lakin coming 3rd and M. Hutchinson 9th on handicap. This is the first time Guy's have supplied the winner for some years.

A good performance by the second team in the University 2nd league pulled them up to 17th out of 30 teams after four races, and this in spite of missing one race when we could not field a full team

The results of the St. Mary's Hyde Park Inter-Hospitals' Road race were an accurate forecast of things to come in the Cup Race, Guy's were again 3rd.

Imperial College turned out two strong teams for the match at Richmond, and Guy's—perhaps taking it easily in view of the cup race three days away—only did enough to ensure second place. This race was interesting in being about threequarters of a mile longer than expected when the leaders lost the way and were followed all over Richmond Park on a hair-raising course over ditches and brambles.

Kent Hughes, Saturday, 1st February.

There was a strong turnout for this race—prompted possibly by thought of the dinner that follows the race and with help from members of the Hockey and Pentathlon clubs. As a result Guy's fielded a record team for the first time for three years.

E. Bowen-Jones and D. Vernon left their books to put in performances above expectation with exams only a few week's away. J. Wheeler, a fresher who was running very well before Christmas, recaptured some of his old form to help three more senior members pack in well together from 9th to 12th.

9, A. Lakin, 32.23; 10, P. Witting, 32.50; 11, J. Wheeler, 33.10; 12, D. Cooper, 33.10; 20, E. Bowen-Jones,35.20; 23, R. Wilson, 35,32; 26, D. Vernon, 36.29 29= N. Tilling, 37.00; 36. D. Moore, 38.35; 41, C. Hone, 39.59; 45, M. Jones, 40.50; 46, R Jones, 40.55.

1st, Bart's, 30 points; 2nd, Mary's, 41; 3rd, Guy's 'A' 62; 6th, Guy's 'B', 177.

U.H. Handicap, Saturday, 4th January.

1st, D. Cooper.
3rd, A Lakin
9th, M. Hutchinson.

ALAN LAKIN

WATER POLO

GUY'S v. ST. MARY'S HOSPITAL

At U.L.U. 28th January, 1964.
Result: won 2—1

St. Mary's have, for a long time, been the needle team to us and this was no exception. Guy's played indifferently in the first half, conceding one goal, a brillant opportunist shot from the wing by Fox, who flipped the ball backwards to catch J. Siegle unawares. The second half proved more fruitful and Guy's, having measured Mary's up, scored two goals by Barnes, both following rapid swims up the length of the pool to outpace Mary's defence.

This game proved that a man is unmarked if allowed to be only a yard away, and since the winning goal came only nine seconds from time this was, happily, an expensive lesson, for Mary's.

Team: J. Siegle (goal), J. Holland, K. McGlynn, B. Valentine, R. Jones, D. Barnes (2), D. Bartlett

GUY'S v. NORTHAMPTON COLLEGE

At U.L.U. 30th January, 1964.
Result: drawn 3—3

We went into the water with some trepidation. N.C.L. being a strong and accomplished side. This appeared reasonable when they were 2—0 up at half-time, in spite of some excellent keeping by J. Siegle. Guy's were unfortunate not to have scored twice, when the ball was hastily cleared from the line. Immediately the second half began, B. Valentine scored with a powerful long shot, but N.C.L. restored the difference soon after. Guy's had their second goal when an N.C.L. defender, going for B. Valentine, who was just taking a pass, knocked the ball past his own keeper. Twenty seconds from time D. Barnes equalised from a move instigated by the defence. For the first time Guy's played as a big-pool side.

DEREK BARNES

Team: J. Siegle, goal, D. Barnes (1), B. Valentine (1), K. McGlynn, J. Holland, D. Bartlett, R. Jones

GUY'S v. BEA

At Bermondsey. 3rd February, 1964.
Result: won 11—3

Guy's looked by far the stronger team right from the start, in their first game at home this season. They took full advantage of their superior speed, to get possession, but did not always take full advantage of the possession. In the first quarter Holland scored a quick hat-trick, but then encountered some tight marking.

The team played better together than usual, but still must learn not to waste their chances by keeping the ball so long once they have gained possession.

GUY'S v. IMPERIAL COLLEGE

At U.L.U. 11th February, 1964.
Result: drawn 3—3

Guy's were quickly down by two goals against the formidable league leaders. Then, however, somehow "spurred" into action, Guy's fought back splendidly, outswimming their opponents and playing very well as a team. By half time the score was two goals all, Guy's goals coming from Valentine and Jones.

Defending the deep in the second half it did not seem likely that Guy's could hold I.C., and in fact I.C. went into the lead with a goal about midway through the second half.

Guy's continued to play well, and with seconds to go Jones beat the I.C. goalie to earn a draw. Perhaps man of the match was Siegle in goal who made some fine saves.

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HOSPITAL INFORMATION

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PASS LIST

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M.R.C.P., January, 1964

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S. McHardy-Young
C S. Ogg
S. O. B. Roberts
M. D. Robson
M. D. Sanders
T. Sherwood
I. Ziment

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M.R.C.O.G., January, 1964

B. A. O. Bills
T. R. Cullinan
N. D. Kilpatrick
F. O. Negbenebor

SOCIETY OF APOTHECARIES OF LONDON

Final Examination, January, 1964

Surgery

R. Jacques Parker*

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*Completed the examination

PAPERS BY GUY'S MEN

In order to make this list as complete as possible, Guy's men whose papers have not been printed in this column are asked to send the Editor details of their publications.

Baker, C. G. and Somerville, Jane. Results of surgical treatment of aortic stenosis. *Brit. med. J.* 1964, i, 197.

Brice, J. G. and others. Effect of constriction on carotid blood flow and pressure gradient. *Lancet* 1964, i, 84.

Cameron, J. S., Keen, H. and Menzinger, G. Insulin activity of normal plasma and plasma acid-ethanol extracts. *Lancet* 1964, i, 74.

Enticknap, J. B. and another. Peritoneal tumours in asbestosis. *Brit. J. indust. Med.*, 1964, **21**, 20.

Fry, John. Coronary heart disease in general practice; natural history over twelve years (1950-1961). *Proc. R. Soc. Med.* 1964, **57**, **39**.

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GUY'S HOSPITAL GAZETTE

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Editors *T. C. Davis*
B. H. Hicks

Sports Correspondent *E. Tiller*

Guy's Hospital, London

PASSIM

Fun and Fear

To quote the Residents, " We've had our laugh At the senior staff, And now it's the bitter end," for another year. The fun of the Residents' Play has always been, and is, of the best type, brutally frank but never malicious, and it is good to feel that even the hierarchal heights of Guy's can still find humour in their own idiosyncrasies and—dare one say it?—even faults. While chuckling over memories of the play, however, this may be the moment to regret that year between "bitter ends" when a stronger tradition of "Respectful we on bended knee" holds sway in the hospital. Respect in itself, accorded to senior status and experience, is appropriate and even desirable, but respect or fear should not exclude constructive criticism expressed in a reasonable way.

Two recent items are notable in this respect. The distribution to dental students of "name-tabs" to be worn on the lapel, which has been commented on in Passim and in the Correspondence column, met with widespread objections from Dental students. Despite this strong reaction, no protests were put to the School authorities, no letters were published in the *Gazette;* this because no individual was prepared to put his name to an opinion crossing the official view. It was *felt,* rightly or wrongly, that the element of risk was too great. In the *Gazette* of 25th January a moderate letter was published, objecting to the current increase in size of clinical firms. It was published, with reluctance, anonymously—because the medical student concerned would not "risk his future" by signing such a letter. One must stress that both these examples only illustrate an impression shared by a majority of Guy's students, and this impression may be completely false. Nevertheless the impression is a strong one and, we believe, a sad reflection on our hospital.

If this situation were to be changed, two courses present themselves. Any possible basis for this impression should cease, and then the impression should be dismissed where there is no evidence to fortify it. The first is obviously a matter for the fairmindedness of the elders of Guy's, and the second demands a faith in that fairmindedness on the part of the student. If the faith is yet lacking it may be usual student cynicism, or it might be moral cowardice, a question on which students might ponder.

Admittedly, these changes of attitude might be found difficult on both sides of the fence, but it would make Guy's a better place to work (and think) in.

Newington Lodge and on . . . .

After publishing two articles on the problems of the homeless and old people it will be useful to consider the problems encountered

in the rehousing of old people. Rehousing this section of the population is one of the social problems that occur when older parts of a town are being improved and re-developed. As the town expands it is mostly younger households, particularly those with children, which move to new dwellings being built on the outskirts. A residue of old people is left behind in dwellings which may be too large for their present needs, or which lack modern amenities and may be in poor structural conditions. Recent surveys have shown that old people living in the deteriorated centres of towns often do not wish to move. They accept the inconvenience of an outside W.C., inadequate facilities for personal and household washing and steep flights of stairs for the sake of familiar and friendly surroundings and of convenient access to shops and town amenities. Many social problems arise from the inevitable transfer of families from the centre of a town to a new housing area on its outskirts. For old people the problems are likely to be still greater. Old age, lack of money and illness may impede adaptation to new circumstances. Important facts to be considered must be the problem of access to shops, the effects of rehousing on church-going, on visits to the social club or pub and on maintaining contacts with friends and relatives. By reviewing the available information about the social life of old people it seems that ability to get about is a key factor, the ability and will to go shopping or visit the cinema or pub will increase social contacts and it seems clear that old people are prepared to move provided that they are given the occasion to establish contacts in a new area where there is suitable provision for them. This will discount the popular belief that "you can't transplant old trees".

One design for their lives has been the provision of housing for about thirty or forty old people in the central areas of moderately-sized towns. These people have the chance to make wide social contacts but it is interesting that their general satisfaction did not relate to the total number of houses on the site. Neither did living in an exclusive or in a mixed scheme seem to affect their general satisfaction. Many, however, particularly in the older age-group, have expressed a marked preference for housing schemes occupied exclusively by old people. It is easy to believe that a spread of age groups ensures a functioning community but that is not always the case.

It is probably unwise to move infirm old people unless there are facilities provided to assist them in re-establishing contacts; they could well fit in with the redevelopment of more central areas. Obviously this problem of rehousing the old is complicated and fractious but it cannot be dealt with by architect alone. There must be constructive consideration between designer, doctor, town planner and welfare officer; one is tempted to bawdlerize and say, "There is more joy in heaven over one isolate council that repenteth, than over ninety and nine others that have always, or nearly always, believed in planning".

GUY'S DIARY

MARCH

EXHIBITION.			*Haematuria.*
9th	M.	1.00	Mr. ROSS. Clinical Lecture. *Surgical Management of Coronary Artery Disease.*
12th	Th.	1.00	Dr. GRIMBLE. Clinical Lecture. *Epidemiology of Gonorrhoea : Facts and Reflections.*
13th	F.	1.00	Professor KNOX. Clinical Lecture. *Mechanisms of Drug Resistance in Bacteria.*
14th	S.	10.00	Mr. L. OLIVER. Departmental Round. Clinical Theatre.
16th	M.	1.00	Dr. P. H. ADDISON. Secretary of the Medical Defence Union. *Legal Pitfalls of Medical Practice.*
17th	T.	1.00	Dr. MACKEITH. Clinical Lecture. *Children who Cough.*
19th	Th.	5.00	Mr. M. FALCONER. Clinical Theatre. *Neurosurgical Round.*
19th	Th.	1.00	Mr. LAWRIE. Clinical Lecture. *Some conditions of the Rectum and Anus.*
20th	F.	1.00	Mr. LEWIS. Clinical Lecture. *Recent Advances in Obstetrics and Gynaecology.*
20th	F.	1.00	Professor R. D. EMSLIE. Dental Clinical Lecture. Dental Theatre. *Oral Hygiene.*
24th	T.	1.00	Mr. ECKHOFF. Clinical Lecture. *Fractures of the Facial Skeleton.*
28th	S.	10.00	Clinico–Pathological Meeting. Clinical Theatre.

Quodlibet—Catholic

The rather peculiar mixture of these two societies produced a most interesting meeting on Friday, 31st January. Regretably this meeting was poorly attended, especially by Quodlibet members.

Charles Curran, M.P., started his talk on "Catholics in British Politics", by the rather questionable statement, "I have never found that my being a Roman Catholic has ever lost or gained me votes". He did, however, qualify this statement by reference to three prominent secularists who walked out on him upon discovering that he belonged to the Catholic Church. Mr. Curran then propounded a remarkable theory that the Labour Party would not abolish Public Schools for fear of offending the Catholic voters. These voters would be alienated because such a move would also necessitate the abolition of private Catholic Schools. He supported this theory by citing an L.S.E. investigation which had shown that 75% of all Roman Catholics were Labour voters. Furthermore, Mr. Curran made the suggestion that Catholics were beginning to exert an even greater influence on British politics, due to the influx of Irish immigrants.

Eventually there followed a most interesting discussion between Quodlibet members and the speaker on all aspects of Politics. The questions included such varying subjects as the Conservative Party Funds and the demise of the Monarchy. Mr. Curran failed to give any real reason why we should vote for his party, but was never at a loss in answering the close questioning.

The next Quodlibet meeting will be announced in the *Gazette*. I hope it will be well attended.

JONATHAN DARE.

NEW HEARTS FOR OLD

A. H. DE BONO
M.D.

The loud ticking of Captain Hook's crocodile is mimicked by the loud click of an artificial heart valve, and no doubt his amputated limb could have been saved by a prosthetic arterial graft.

It is not surprising that cardiovascular surgery has been a fruitful field for the development of all manner of artificial valves and tubes to replace and counterfeit those that Nature has bungled or that have been irreparably damaged by disease. It is easy to grasp the essential simplicity of replacing a blocked tube or vessel with a replacement, just as a plumber replaces a burst or corroded pipe. Yet this simplicity has hidden very real difficulties in the form of clotting.

The object of replacement therapy is therefore to provide a tube or valve which will perform the functions of the tissue it replaces. It must conform to certain rheological norms which govern smooth flow. It must not incite the blood to clot or form emboli. It must not become physically weak through continual movement and change of pressure. It must not provoke any reaction from the surrounding tissue which could lead to infection or necrosis.

Artificial or "Real"

Marge or butter? There would seem to be a deep-rooted controversy between those who maintain that natural, homograft or "real" tissue replacements must of their very nature be superior to ersatz or artificial substitutes and those, on the other hand, who feel that they are more certain of the design and mechanical properties of manufactured replacement parts and that, until the ultimate fate of homografted tissue is fully understood and the immune response controlled, the fate of this material is uncertain or at best the grafts only act as a form of prosthesis. Certainly there are arguments on either side. However, as in all topics which give rise to passionate dispute, this is due to too few facts chasing too many fancies. As more is discovered about the function and fate of these replacements, so the issue will be settled.

So without prejudice in this article some examples of artificial replacements will be discussed.

Vessel Replacements

Various types of hollow tube have been used with varying fortunes to replace most hollow structures of the body. Arterial replacements have been the most successful and dramatic.

A graft is called for to restore continuity in situations where the

lumen of a vessel is interrupted by congenital malformation as in some types of coarctation of the aorta or in Takayasu's disease; where the lumen is blocked by atherosclerosis or long-standing thrombosis; where the vessel has been traumatically or surgically removed; or in order to create an anastomotic link.

Although a freeze dried arterial homograft behaves in many respects like an artificial graft in that it takes no vital or living part in the subsequent development of the vessel, we will consider the more frankly artificial grafts. With the development of a whole galaxy of extrusion fibres so necessary to the "rag trade", a number of woven or knitted grafts became available for surgical use. These fibres were generally inert and were extremely strong. They included Teflon, Dacron, Nylon and so on. They were flexible and did not tend to fracture with repeated distortion.

Naturally they act as a scaffolding for endothelium to grow along. Indeed, some are so loosely knit that endothelial cells have been shown to grow inward through the interstices. This is of prime importance because the patency of the graft depends to a large extent upon this endothelial lining. Failure to achieve such a lining results in clotting, and blocking of the graft.

Such grafts are used to replace the damaged vessel, in which case the occluded part is removed and the graft sutured in its place; or the diseased part of the vessel is by-passed in exactly the same way that the Minister of Transport uses to get round an obstacle. (Fig. 1).

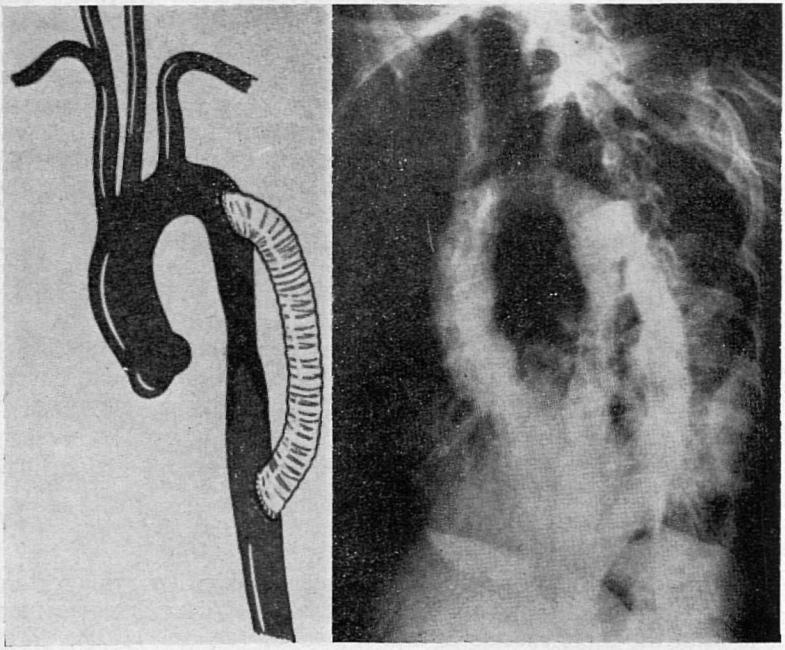


Figure 1

The graft may replace a segment of the aorta. It may replace more than one vessel as in a "trouser" graft to replace the aortic bifurcation, or the vessels of the aortic arch. In a case of Dr. de Bakey no less than eighteen grafts were used.

The success or otherwise of this type of grafting depends on three main factors.

Obviously the graft *must not bleed.* In porous grafts, which are very much superior as they are readily incorporated, a layer of clot is deliberately formed round their wall before they are inserted. This is known as pre-clotting. It is, of course, vital to do this with unheparinised blood, indeed there is something to be said for using unlyseable plasmin-free clot.

The second factor is *flow.* The blood must have somewhere to go. It must have an adequate "run-off". If not the graft becomes thrombosed. This is probably the commonest cause of failure in grafts to the lower limb. The investigation of the distal circulation is therefore of the greatest practical importance.

Finally the graft *must not thrombose* either at the time of surgery, immediately postoperatively or gradually at a much later date. This can be achieved by controlling clotting factors, ensuring a brisk flow through the graft, avoiding pockets of turbulence or "dead water", and by avoiding any foothold for platelets until the graft is completely endothelialised. The control of that unstable and dynamic balance between stop and go, between clot and flow is as yet imperfectly understood. The recent advances in knowledge of clotting factors and anti-clotting and lysing factors is too freshly out of the laboratory for the full significance of this to have been applied to vascular surgery. However, I believe that it is in this field that the next big step forward will take place, and we will be able to control and harness the varied and exotic enzymes of the blood to mould and sculpt for us the exact amount of clot at the right time and place.

Artificial Heart Valves

Ever since the development of efficient methods of maintaining the circulation during intracardiac surgery, much ingenuity has gone into the task of repairing or replacing heart valves. Here again the question of homograft or prosthesis is discussed, often with more heat than humility. Once again the question must remain unanswered at the present time.

Patches of Teflon or other artificial material have been used to make up for tissue deficiency in closing septal defects, enlarging the right ventricular outflow tract or in the repair of valve cusps.

Valves made of various plastics have been cunningly contrived to serve as replacements for irreparably damaged valves. Each valve has been replaced. Sometimes both the aortic and mitral valves have been replaced in the same unfortunate heart.

The amazing simplicity of the natural heart valve, its resilience and strength, indeed its beauty, can only be appreciated when one has tried to make a successful replacement. At first the extraordinary strength necessary to stand up to the continual stress of opening and

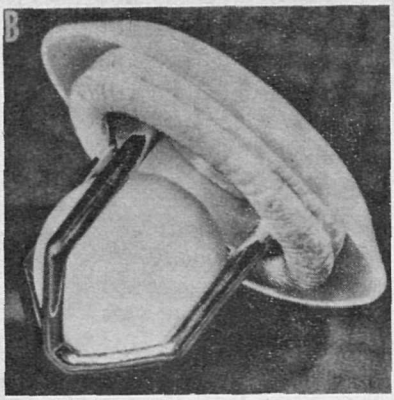


Figure 2

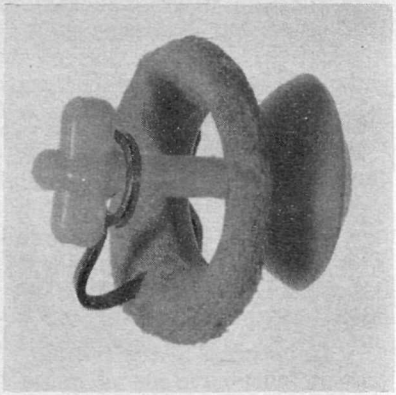


Figure 3

closing umpteen times a year at pressures from 0 to well over 100mm Hg., was considered the main problem. It was so when hinged valves were used. However, new plastic materials of great strength were used and the design modified to avoid using any hinges. Many types were evolved. Probably the best known type is the ball-in-a-cage valve, as shown in Figure 2. This type of valve has been used with some success in the aorta and to replace the mitral valve.

Another modification is the Barnard type which has been used in this hospital by Mr. D. N. Ross. This consists of a round piece of plastic which is mounted on a stainless steel rod which moves in relation to a ring fixed in the mitral or tricuspid ring, as shown in Figure 3.

This type of valve is relatively simple and has few moving parts. Another approach has been to fashion cusps or groups of cusps after the manner of natural heart cusps. These are sutured in place of the damaged cusp. Some of these are made of porous material and the intention is that endothelium should grow into them. This type at present seems to lack the necessary strength, and it is extremely difficult to judge the exact size needed in a particular case.

Yet another modification which is even more experimental than the above is to form an artificial valve or cusp and to endeavour to get the patient's own tissue cells to grow over it before it is put in place. This is done, as yet very imperfectly, in the peritoneal cavity, but I have no doubt will be done more accurately later by *in vitro* tissue culture.

By and large, the immediate functional results are often dramatically good. This is not altogether surprising because the heart has been functioning for some time with grossly incompetent valves and the artificial replacement, if correctly placed, is hydrodynamically sound. However, the greatest single problem remains that of thrombosis and emboli. Thrombosis is less in the left side of the heart where the flow is more vigorous, yet it is here that emboli are most dangerous. Although non-wettable plastic is used for the

moving parts, and the fixed rings are porous to encourage endothelial overgrowth, yet any rough edge or suture grows clot, and this eventually interferes with the function of the valve. Here again there is great scope for controlling the clotting elements in a constructive way.

Artificial Pacemakers

Sometimes, by disease or iatrogenic accident, the natural pacemaker system of the heart is interrupted. Artificial pacemakers have been developed which perform this essential office. They consist in essence of electrodes embedded in the heart muscle or inside the heart chamber which stimulate the heart to contract at a given rate. Transistorised versions can be embedded, battery and all, in the axilla or abdominal wall. As yet no method of varying the speed in response to exercise has been devised.

Artificial Hearts

Quite apart from the many varieties of heart-lung machines, more accurately if less romantically, called pump-oxygenators, a recent news item has been an "artificial heart". This particular one was a hollow tube with two ball valves, one at each end. It was rhythmically compressed by air pressure in an outer rigid tube. One end of this artificial ventricle was sutured to the left atrium and the distal end to the aorta. It was designed to aid a failing left ventricle.

Once again the main difficulty is clotting. The other, in any device of this sort, is that the natural heart can perform enormous feats of energy use from the most minute amount of fuel.

Summary

Replacement therapy plays an increasingly important part in cardio-vascular surgery. As yet it is in its infancy. The two lines of development, apparently but not necessarily incompatible, are homograft or prosthesis. However, the question of paramount importance is clotting. At the moment this is so often an enemy in that it is present when not wanted and absent when needed most.

CORRESPONDENCE

Rugby Behaviour

SIR, So far as Guy's are concerned another Rugby Cup Competition is over. Although disappointed with the result the team played as well as they were able and behaved creditably both on and off the field. Unfortunately the same cannot be said for some of our supporters. Against Barts a thunder-flash was thrown behind an opponent as he was in the act of kicking a penalty at goal. A St. Thomas's wing three-quarter was covered with white powder during the game. Immediately after we had lost the game some Guy's supporters flung bags containing more of this powder at the backs of the St. Thomas's team as they were leaving the field. Much of this powder was scattered over the clothing of spectators who were not students, but who had gathered round the teams to congratulate or condole. This was inexcusable behaviour, unworthy of the teams, and entirely different from the spirit of good-natured ragging which is traditionally associated with these occasions. To see it, was to feel ashamed of Guy's; a most disagreeable sensation and one we are unhappy to record.

Yours, etc.,

T. L. T. LEWIS.
D. STAFFORD CLARK.

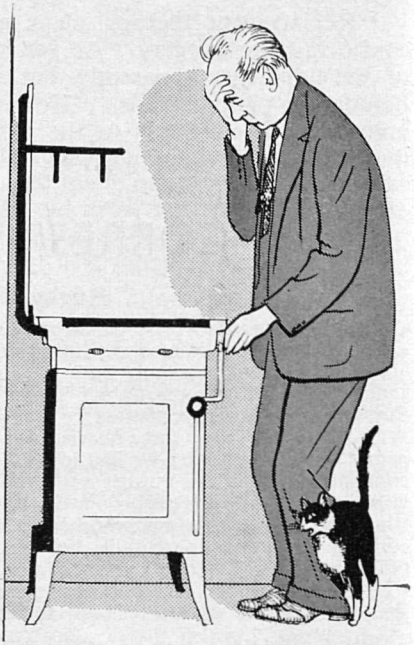
Guy's Hospital, S.E.1.

A Chapter in the History of Guy's

Miss Sylvia Treadgold, Senior Medical Artist to the Medical School, left Guy's at the end of January after serving the Hospital and School for almost 23 years.

The first Illustration Department in Great Britain was formed at Guy's in the immediate post-war period. Medical Art, mainly realistic painting of operations, patients and specimens, was transformed into Medical Illustration which is essentially the pictorial interpretation and visual representation of ideas, concepts and facts. It makes use of any and all the visual media which have been and are being evolved.

Graphs, those clear summaries of a welter of complex figures and factors, used once to be drawn laboriously with special pens and stencils. Now the electric typewriter and mechanically produced, clean-cut letters for transfer to paper by simple pressure make it possible not only to produce infinitely more legible and pleasing results, but also to keep pace with an almost torrential increase in the requests for graphs, diagrams and tables for publication or as slides for lectures.



Graphs are but one example of the work with which the modern medical illustrator is concerned. However, those readers of the *Gazette* who have tried to express the essential meaning of their experimental results and statistics in a simple form for ready assimilation, will appreciate the mental agility and expertise, as well as the polished craftsmanship, which are now at their disposal.

In 1947, when the Medical School created the Department of Medical Illustration, the administrative foundations were laid for a quite new, but essential, development to assist in the proper function of communication, that is in the effective propagation of an

increasingly more complex body of knowledge to students and of new information arising from a growing volume of research.

As in the classical days of medicine, Guy's was again fortunate to find within its community an outstanding personality to undertake the detailed research, day-to-day administration and evolution of new methods and procedures which have made the department so well known, not only in the English-speaking world, but also in the universities of a great many other countries.

Sylvia Treadgold, daughter of Group Captain H. A. Treadgold, C.B.E., F.R.C.P., interrupted a successful career in the art world to contribute to the war effort. She was accepted as a student radiographer on the morning after the front wing of Guy's House had been destroyed by enemy action. She qualified in 1943 and lived in the Nurses' Home until the end of hostilities.

Even at this time Miss Treadgold showed a keen interest in other forms of visual recording and took over from the clinical photographer in the X-ray Department on a number of occasions. She was therefor the obvious choice to take the place of the clinical photographer who left in 1945 to get married.

Her studio was soon moved from the Surgical X-ray Department to the fourth floor in Hunts House. As members of the staff returned from the Forces with an interest and experience in visual aids, the work requested from her increased in volume and variety. The next two years brought an assistant photographer and a secretary.

However, photography on its own proved insufficient for the needs of some Hospital and School departments, and it was natural for Sylvia to make use of her art school training by helping with pen, pencil and brush whenever she could. When it became apparent that the process of evolution threatened to be inhibited by shortage of staff, an additional photographer was engaged, so that Miss Treadgold could devote herself entirely to illustration. Indeed, the excellence of her work not merely satisfied existing needs, but created additional demands for her services, so that she was given first one extra artist and then a second.

If Miss Treadgold has been a good craftsman and willing to pass on to others her knowledge and experience, Guy's has been well served. She has trained a succession of students, some of whom now hold lecturer status in other medical schools, and she is Hon.

Secretary of the Education Committee, the Medical Artists' Association of Great Britain. Miss Treadgold has lectured at Guy's and before several learned societies in this country and in the United States of America. She has also published a considerable number of papers in several medical journals. Beyond this, she has a critical appreciation of the whole field of visual communication and its application to medicine. From her hand and under her direction have come a succession of scientific exhibits, teaching exhibitions, book and journal illustrations, posters and pamphlets, animated diagrams and drawings for films and for television, as well as three-dimensional preparations. Those who are actively involved in teaching will appreciate the singular contribution which her analytical mind has made in helping to ensure that facts and ideas or concepts are successfully conveyed through the most suitable medium and in the most effective manner. Those who have taken her into their confidence have not been disappointed; her contribution to their work has not infrequently led to a more concise and clearer text, this in addition to her inimitable interpretative drawings. All who have consulted her during her years at Guy's will remember this charming *backroom lady* with pleasure and appreciation.

To record more of her activities besides her responsibility for some of the scientific exhibits at the Festival of Britain South Bank Exhibition, that she was the first medical artist to be admitted to membership of the Society of Industrial Artists, art editor of the British Medical Association publication, "Medical and Biological Illustration" and a television broadcaster, might make this brief appreciation seem rather like an obituary.

Sylvia Treadgold, however, does not leave the Department of Medical Illustration after 23 years at Guy's to retire, but to find greater scope for her expert knowledge and ability in free-lance work.

Pupils' Physical Society

Symposium on Chronic Bronchitis by a physician, an anaesthetist, a pathologist and a radiologist.

If it happened that people from another planet had offered us two things to ameliorate our condition, one that for less work would make us richer and more comfortable, the other a pleasant, relaxing, convivial habit, but in return we should have to sacrifice 100,000 people every year, it is doubtful that the offer would be accepted. But because it was through our own industry that we learnt to burn coal and tobacco leaf, we accept the sacrifice with no compunction. So the burden is thrown upon the Health Service, hardly a logical way to approach the problem.

Dr. Scott gave the mortality figures and discussed the aetiology and diagnosis and Dr. Potts illustrated the functional pathology with spirometer tracings. The microscopic pathology came over in slides reminiscent of Quatermass "things" shown by Dr. Missen and the premortem changes in bronchograms and pulmonary arteriograms were shown by Dr. Roebuck.

The medical side of the problem was well done but it seemed a pity that the social aspects were not included, from control of pollution, to the support of the incapacitated and by drug therapy and rehabilitation. Meanwhile *smoke* is still being produced.

DENNIS BAINBRIDGE.

THE RESIDENTS' PLAY, 1964

Dr. Haustus

by Anthony Hopkins

FIRST the story of the play, and then some criticism.

The first scene opens with a typical lunch-time scene in the New Staff Common Room. The dear "Bunnies" (not to touch) are in action, including the charming coloured girl with the pink tail and as pretty as ever. Habitues Shamm, Madclean and Sharkskin are finishing their final drinks. The party is disrupted by the entrance of a slim, handsome masked man wearing black tights and carrying a whip with which he chases the bunnies off the stage. Seated at another table he listens while the trio discuss their troubles, their chief complaint being the approach of "early middle age". Sharkskin doubts if his companions could afford a face-lift and Madclean suggests steroids. Shamm asks how does Florrie manage not to look a day older than when he was appointed. They have decided to follow his every movement and learn his secret when the intruder cracks his whip and reveals himself as Professor Boloni in disguise. He has heard their ideas and offers to help since he can go anywhere in his disguise unnoticed. He explains that debased by the possession of two millions he has returned to perverted pleasures.

STANDARD SONGS FOR SUBSTANDARD CONSULTANTS

Shamm:

I, son of Wilks, of Hurst, of Bright
The vulgar herd revulse,
My classic hand, lead, kindly light
Toward the Sceptered pulse.
My lofty brow, my rare demeán,
My noble heart display.
I mean . . . I don't know what I mean . .
I mean . . . I mean to say.

Chorus:

All of us fifty, two score and ten,
Thoroughly middle-aged upper-class men
Searching for comfort, money and truth,
Happiness, riches, beauty and youth.
All of us tarnished with treading the wards
Patching up peasants and physicking lords,
Pursuing illusions of class and of wealth
But saying good-bye to our youth and our health.

Madclean:

While Willie inarticulates
About the Grecian isles
I win my bread and pay my rates
By sly steroidal wiles.
The problem is so simple when
Brute force is just the stuff
And when beyond my feeble Ken
Then bluffing is enough.

Sharkskin:

My exploits as a Casual Boss
Are all that they might seem,
But if I sinned, bear with my loss
Sharkskin can feel shagreen.
And though their heavy aprons drape
Their bent arthritic knees,
My ladies, as they breast the tape,
Do so with plastic ease.

All:

Though conscious of our sacred trust
We seek a higher plane.
Our ageing minds have turned from lust
To thoughts of simple gain.
Now look at us, throw off our veil
And see us as we are:
Unhappy souls, beyond the Pale
And soon to cross the Bar.

In the next scene we find the hero and heroine making love in the Surgeons' Dressing Room. They are disturbed and Prunella hides in a locker as Boloni, Sharkskin, Madclean and Shamm arrive. They tell Jerk that Boloni's trousers have been stolen and are searching because so many trousers are taken off here. They decide to hide in the lockers, leaving Jerk alone on the stage. Florrie arrives, young and handsome, and sends Jerk off to do his list, ending with a circumcision. Florrie strips down to his string vest and does his morning exercises. The spying physicians doubt if this alone explains his youth. There is a crash of thunder and Hardkick, the Devil, arrives on his way back from hell to the diabetic clinic. He asks if Florrie needs any help but when told he can get on alright without him Hardkick reminds Florrie that 20 years ago at the Middlesex Hospital he sold his soul in exchange for eternal youth. So the truth is out and the listening inmates of the lockers know all.

HARDKICK/FLORRIE SONG

Both: *Damned beyond redemption we*
Stir the urine, taste the tea
Made by Chrimes and all her nurses
Chanting foul and filthy curses.
Hardkick: *Benedict glucose oxidase!*
Chorus: *I'm a sordid old cynic*
Hardkick: *Ensconced in this Clinic*
Florrie: *A'buying the souls that I damn*
damn. damn.
Hardkick: *I'm smart, I'm slick*
Florrie: *You take your pick*
Hardkick: *I'm cool, I'm quick*
Florrie: *It makes me sick*
Hardkick: *I am the Wick*
Florrie: *The fiendish Wick*
Hardkick: *The Wick! I thumping well am.*

Hardkick: *When I was small*
Florrie: *Not quite so tall*
Hardkick: *I gazed into my crystal ball.*
Florrie: *He saw within*
Hardkick: *Lay Insulin*
Florrie: *He gave up drink, he gave up sin*
Hardkick: *Forsook the Knife*
Florrie: *For mental strife*
Hardkick: *To live a diabetic life.*
Florrie: *A brilliant move*
Hardkick. *Once in the groove*
Florrie: *Succeeding registrars would prove*
Hardkick: *That I am right*
Florrie: *(The facts despite)*
Hardkick: *And rectitude is my delight*
Florrie: *Who could foretell*
Hardkick: *I'd end in Hell*
Florrie: *And ring in souls with Chrimes'*
bell?

Hardkick: *Easy at first*
Florrie: *When at its worst*
Hardkick: *Mere itching, weightless, weakness,*
thirst
Florrie: *His tortured mind*
Hardkick: *Could not but find*
Florrie: *Its solace in such simple kind*
Hardkick: *But now I think*
Florrie: *He's o'er the brink*
Hardkick: *New metabolic quicksands sink*

Hardkick: *My wit, my grace*
Florrie: *His handsome face*
Hardkick: *Sufficed at Guy's, secured my place*
Florrie: *Unplagued by doubt*
Hardkick: *I dish it out*
Florrie: *Sometimes they twist, sometimes*
they shout
Hardkick: *Yet cannot flee*
Florrie: *The devil, he!*
Floreant Florrie
Hardkick: *Hardkickque!*

Hardkick disappears in a puff of smoke and Jerk comes seeking Florrie's aid. His circumcision seems to have been too thorough. They both exit.

The physicians reappear and after consultation Madclean and Boloni leave to get jodhpurs and it appears that Shamm and Sharkskin have decided to see Hardkick in the Diabetic clinic. They exit and Madclean and Boloni return also deciding to visit Hardkick.

Scene three finds Moanahan and Flauntze sitting in a small boat on the banks of the river Styx or Sweet Pea stream. Their discussion of the Chinese, hydrogen bombs and tropical fish is interrupted by the arrival of Shamm and Sharkskin.

IRISH GIGUE

MOANAHAN, SHARKSKIN, FLAUNTZE, SHAMM

Moanahan: *I'm Moanahan*
Sharkskin: *Sharkskin*
Flauntze: *Let's hear that name again*

Moanahan: *Moanahan*
Sharkskin: *Sharkskin*
Flauntze: *Flauntze*
Shamm: *. . . and I'm Shamm.*

Moanahan: *Though none of you's Irish*
Flauntze: *Well, you can say that again*
Moanahan: *You're full of blarney*
Flauntze: *I am*
Sharkskin: *And I am.*

Moanahan: *Give me*
History, clystory,
Anything blistery
Down to the atom
And up to the scab.
For I have the facts
And there's nothing a mystery
But best of all I've the gift of the gab

Shamm: *I diet my patients*
Diet them properly
Syphilis, ulcers, colds in the head.
I often discharge them if they eat sloppily.
Do as you're told if you're ill in my beds.

Sharkskin: *If a woman's fecundity leads to obesity*
Cut the rotundity if she's rotund.
Does my bank balance suffer?
No, not in the leasity,
One hundred guineas for every tum done.

Flauntze: *I . . . have recently moved into Blueberry,*
I watch the swallows dip over the moat,
Tho' perhaps I see less of obesity
My love of round figures allows me to gloat.

Flauntze explains that they are "earning a few extra honest pennies" by ferrying Christopher's patients across to the diabetic clinic. But why the boat, why the water? Flauntze replies, "Polyuria, my dear fellow, Polyuria." Shamm and Sharkskin agree to pay their guineas and are rowed across by Moanahan and Flauntze. Moanahan's oar turns blue. They note the sinister fact that no one is ever discharged from the diabetic clinic.

They are greeted at the far bank by the three-headed dog, Cerberus, a black and sinister creature with bloodshot eyes and lolling tongue. Flauntze explains that the animal is Christopher's and when

Sharkskin tries to be friendly he is bitten. Moanahan suggests that this shows an inadequate personality but they decide it is not a mad dog since Sharkskin is not frothing any more than usual.

Flauntze, Moanahan and the dog exit and Shamm and Sharkskin grope about in the darkness. Shamm suddenly clutches something, it is a female who seems rather pleased but he begs Sharkskin to find the light switch. They realise they are in the records department, the clerk exits leaving them with a quite immobile Charlatan.

Sharkskin: "Ah, medical records, this is hell indeed." They examine Charlatan, who wakes up and introduces himself with considerable dignity. Pleased with their apparent interest in notes he rings for his secretary, who sports a large moustache and is accompanied by a policeman. She accuses Shamm of assault, the policeman beats Sharkskin up, commenting, "just a routine enquiry". They both exit.

Charlatan is soon in tears, discovering no real interest in notes from his visitors. "All these years sitting here," he sobs, "I've suffered so badly from files." Sharkskin and Shamm quickly decide that, needed no longer in the play, the best thing is to shoot Charlatan; they do so and exit with the body.

Madclean and Boloni now arrive on the opposite side of the river to the boat and their ahoy is answered by Moanahan and Flauntze, with Cerberus. They row across. After another haggle about fares, much higher this time, they reach the bank and Cerberus licks Boloni. After some discussion, Boloni announces that Cerberus is a failed F.1 hybrid—a triple X female. Cerberus sings a triple headed duet with himself, very cleverly tape recorded.

CERBERUS SONG

You may wonder when you see me
What a dog is doing here
With these structural anomalies
That strike the heart with fear.
Perhaps you had not noticed
If you have, I will explain,
But before I do please listen
to my sorrowful refrain.

Three heads, three heads who wants three heads?
Who wants a serpentile tail?
All that I ask for is one kind word—
Or a tricephalis male!

I was born with all these extras
And amazed the local Vet,
Who described me when he saw me
As a most unusual pet.
I forsaw a brilliant future
For a dog with so much head,
But I ended up a porter
At the gates of Hell instead.

Boloni offers Flauntze 1,000 guineas for Cerberus, who promptly bolts off stage, the sound effects department creating the illusion of a galloping horse going right across the theatre! Boloni and Flauntze realise that Cerberus is a potential gold cup winner. He is to go to Boloni's stud farm in Kent. Cerberus returns and a partnership to run her at Ascot is agreed upon. No need to visit Christopher now.

We'll win thousands on the Gold Cup
At Ascot with the devil's pup.

In the next scene we find Hardkick dealing with a patient of low I.Q. and after some amusingly confused dialogue, Shamm and Sharkskin appear. Ignoring the patient they tell Hardkick his secret is out. Hardkick, unimpressed, tells the patient he has the sugar diabetes. The patient shambles out complaining that he only wanted a certificate. Shamm and Sharkskin want to sell their souls for eternal youth but Hardkick is not impressed. Although Shamm points out that he is a senior soul, Hardkick cannot face his chatter for eternity. Sharkskin does worse, for reference to the punch card index shows that he has no soul at all. Softening a little, Hardkick volunteers to do some small thing and Shamm wants to be made a "real Royal Physician" "I never see anything but postillions' aneurysms and housemaids' knees". This is off, because the palace "needs midwives more than doctors". Sharkskin fares no better with a request for In-patient beds. Hardkick suggests ghost raising and at Shamm's request we reach the closing stages of this act with the arrival on stage of Bright and Addison. Bright to Addison: "At all costs Thomas, we must keep that dreadful man Hodgkin off the staff." They are joined by Hodgkin and then Sharkskin's interest in breast configuration is filled by the appearance of Helen of Troy in the guise of Sister Hopelis, and a delightful song ends Act 1.

SONG FOR SPECTRES AND SISTER JARVIS

Bright:

Of Bright I am the spectre and
A member of this ghostly band,
Who tread the endless years away;
Condemned to bitter misery.
One hope
Alone
Sustains my flagging heart.
If one kind nurse
Would lift the curse
And help me to depart.

Chorus:

One kiss. One kiss
Is all that we are needing.
Oh! Listen to our pleading.
One kiss will break the spell.
One kiss. One kiss.
A single osculation
Won't harm a reputation,
And we'll escape from hell.
Yes, we'll escape from hell.

Addison:

Of Addison I am the ghost
Compelled to fiery hell to roast.
My earthly days were filled with praise
But now in Pluto's flames I braise.
But hope
Is near:
A figure all in blue.
One little peek
Upon the cheek
Is all she'll have to do.

Hodgkin:

Of Hodgkin now behold the shade
By devils lashed and demons flayed.
Though Strict in faith it seems that I
Endure the greatest agony.
On earth
Success
Eluded me and here,
In Hades, I
Must ever lie
Unless a nurse appear.

Sister Hopelis:

My principle, learned in my prime,
Is "keep them moving all the time"
In deepest Hell or here at Guy's
The O.P.O.'s buzz round like flies.
I can't
Stand here
And gossip like a girl.
It seems to be
A kiss from me
That frees them all from Hell.

All:

This loving kiss has freed us all
And saved us from King Pluto's thrall,
And now we think it would be wise
To take up our old posts at Guy's,
And so
We go
And thank her as we leave
That S.R.N. Samaritan
Who gave us our reprieve.

The second act opens in the Royal Stables with a very soulful-looking horse backstage standing quietly rolling its beautiful eyes. Enter Madclean and Flauntze with a bucket. They discuss the form for the Gold Cup and announce that the Queen's horse must be doped. When offered a mix of prednisone and mash the horse surprises them by speaking French. She goes coy and won't try the mash. Ultimately, with Flauntze holding her head, Madclean tries blowing a pill into her mouth through a pipe but the horse blows first and Madclean falls unconscious to the ground. The horse laughs. Now Shamm and a postillion enter and Flauntze hides. They inspect the body of Madclean but decide he is probably dead and Shamm remarks, "I think it's such a pity to do anything dramatic when the heart has stopped".

It seems that the postillion is the only patient and he reminds Shamm that "Friday is the day we cut the household toenails". While Shamm is at work with his scissors on a disgusting looking foot, the postillion invites him to put a grand on the Queen's filly. He introduces him to the filly as his chiropodist and the horse replies politely in French. Shamm is delighted and tells the audience his love for France. Shamm's Sign should really be le sign de Shamm. He is led away to meet the bookmaker.

BOLONI'S SONG

Heredity, heredity has made me what I am
The head of a Department that is going to expand
It really is incredible what we have all achieved
What we have found heredible can hardly be conceived.

There's a little group of gentlemen who follow me around,
You'll see them almost everywhere I go,
And they take down the particulars of people that I meet
And analyse them fully top to toe.
And they look for little moles that may hide away in holes,
And take notice of the colour of their eyes,
And the way their hair is parted did their great grand uncles start it.

Do the tears roll upwards if the fellow cries.
Did your parents intermarry with Tom or Dick or a Harry
Or were marriages a family affair?
Is your nose upon your chin, are your feet directed in,
Do you have some teeth, if so, just tell us where.

The next scene is, not surprisingly, at Ascot, with two private boxes. Moanahan and Flauntze, groomed by Moss Bros., and Boloni in jodhpurs are having champagne and oysters. We gather that Cerberus is in good form. In the distant 3/6d. enclosure Flauntze, with outsize glasses, spots "a balding bourgoise with baggy trousers" who is "the steroid-smitten Madclean". Shamm and Sharkskin now enter the other box while Flauntze fetches Madclean. On their return it appears from the conversation that Cerberus is backed very heavily by everyone except Shamm and Sharkskin. Hardkick now enters disguised as Prince Monolulu but fails to interest anyone in his horse. They all leave him as Jerk and Prunella enter. Prunella, apart from the hair on her chest, looking ravishing in a low-cut frock. Hardkick succeeds in selling them his horse, an outsider, Sweet Breath at 100 to 1. They sing a delightful number, "The Bufo-Bufo," and Hardkick departs with the usual thunder.

THE BUFO-BUFO

You do the Bufo-Bufo after making hay,
You can't undo tomorrow what you did to-day.
And if you're still uncertain never ask your Mum
Say Bufo-Bufo, she will come.

Chorus: *And if you see the Bufo-Bufo*
Hopping slow--ly down the road
Never cross the Bufo-Bufo
She's not an ordinary toad.

They say the Bufo-Bufo is so very wise,
You'll rarely find her false, she hardly ever lies.
And if you have a secret, and you're fit to bust,
It's the Bufo you can trust.

You do the Bufo-Bufo when you want to know,
You do the Bufo-Bufo if you've been too slow,
If you are more than lovers holding hands,
Then Bufo-Bufo she understands.

The Bufo-Bufo's life has never been sublime,
She cannot choose her mate or even state the time,
Her life is regulated, and the way she's used
The Bufo-Bufo's not amused.

There are only three runners, Cerberus, the Queen's filly Our Baby and Sweet Breath. Jerk has no money so they exit to put Prunella's all, ten pounds on Sweet Breath.

The big race is imminent and Flauntze, Moanahan, Boloni and Madclean enter, followed shortly by Shamm and Sharkskin. We hear the typical background noises of the course and then the voice of the commentator. I must pause in my story to tell you that that commentary was so well done that some of the audience may well have taken its quality for granted. If the commentator wants a change of job he should contact the B.B.C. They are "under starter's orders"

when Jerk and Prunella re-enter and then "they're off" with Our Baby in the lead. Cerberus, however, is coming up fast and is two lengths clear in the lead when—thunder and lightning—and Hardkick again. He jeers at Flauntze and Co., and orders Cerberus back to Hades. The commentary tells us that Cerberus has stopped dead—Our Baby has hit him and both have fallen. Yes, of course, Sweet Breath the winner. Prunella and Jerk exit to collect a thousand pounds and Hardkick closes the scene as follows:—

"Indeed, you thought to trifle with my powers,
Others have tried but each will always fail.
Boloni in the space of several hours
Will you and fellow villains grow a tail."

We are still at Ascot when the final scene opens. On the stage Prunella is bandaging Our Baby's leg and Jerk is counting his money. The horse exits and Moanahan enters furtively with an odd walk. He is in trouble, and at last confesses that he needs Jerk's help and, turning his back to the audience, reveals a nice line in tails. Moanahan calls it a filiform papilloma and wants Jerk to cut it off. Enter Boloni, Flauntze and Madclean, all with different styles in tails. Jerk is reluctant to attempt four removals and is blackmailed by Madclean. Does he want to be promoted from O.P.O. to H.P., they will fix it, otherwise New Cross for him. This doesn't work. Flauntze tries bribery with no more success and after a brief consultation Boloni threatens to use his whip on Prunella. Her dress is half-off when Jerk gives in. Boloni is voted first man in and Jerk, scissors in hand, is just about to snip when Florrie, Shamm and Sharkskin appear. Florrie stops Jerk, he has no bucket handy and "there is probably a large blood vessel running right down the middle". Shamm suggests mild medication and a holiday, and Sharkskin a "wide excision of the root, including both buttocks". Florrie, as devil's disciple, is persuaded to try an incantation and this works at the second attempt—the tails fall off.

In gratitude to Florrie they decide to try to get his soul back by exorcism. The lights are dimmed as a pentagon is swiftly marked out. The cast, with bell, book and candles, dance round with Florrie in the centre chanting their invocation. More thunder, etc., and of course, Hardkick and the faithful Ceberus. He announces to all that he is keeping Florrie's soul. The situation is desperate—until a tall, helmeted figure with flashing sword strides on stage and confronts Hardkick. He commands him back to hell, and who is it? Up goes his visor to reveal the great Sir Bo of course, and so into the final chorus.

FINAL BLOODY CHORUS

We've enjoyed it tonight
Have you?
We've fought the good fight
Right through
We took our cues,
Sustained by booze,
And now it's the bitter end.

For the houseman at Guy's
Our play
Speaks the truth, not just lies,
To-day
We've had our laugh
At the Senior Staff
And now it's the bitter end.

For the rest of the year
We gloat
We listen we hear,
We note,
Respectful we
On bended knee . . .
But now it's the bitter end.

You must leave your rank
Outside
Never less than frank
We've tried
Polite but firm
To make you squirm
But now it's the bitter end.

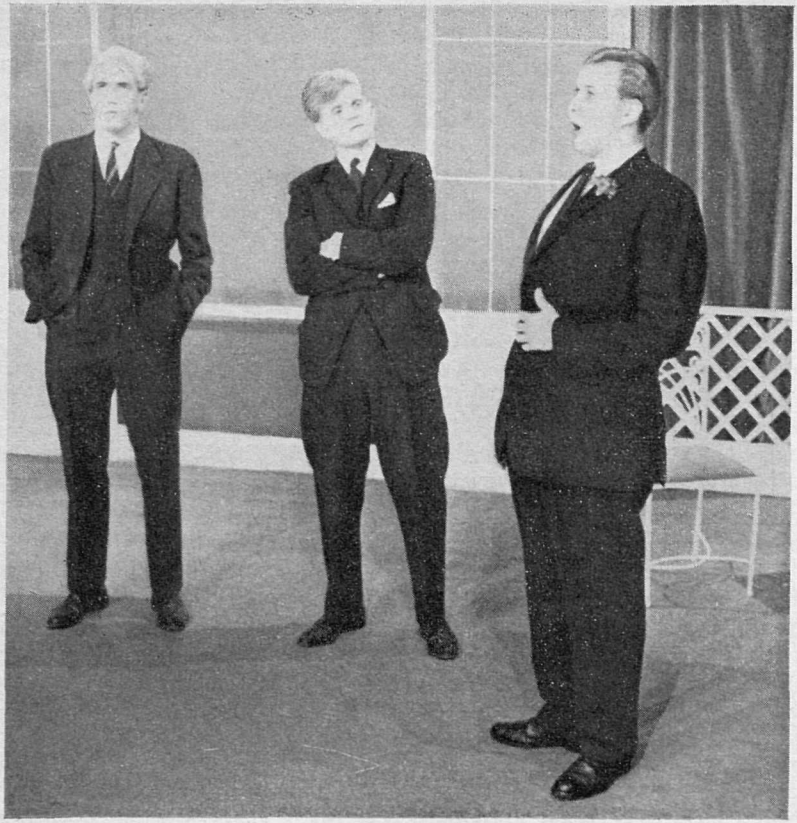
Our intention is clear:
To poke
Fun at those you see here.
Our joke
Though sick, is right
Goodbye, Good night
It's the end, it's the bitter end.

So much for the play and I wish there hadn't been so many entrances and exits to mention, but all credit to the producer. The constant movement of the cast was handled like everything else, with a professional smoothness. This play was far better rehearsed than any I have seen for years and having seen every play since 1935, I should know. Let's hope Mark Rake and Stewart Cameron can do it again next year. The casting was good and best must go to Anthony Child, the best Hardkick to date, and probably unbeatable. Apart from a slight cockney accent, Michael Pearson was nearly as good as Shamm, maintaining a very long part without once slipping. I loved the way he sang: "I mean . . . I don't know what I mean . . . I mean . . . I mean to say". Boloni and Sharkskin, Eric Harley and John Clark were good and Sharkskin dealt very skilfully with the complicated speeches and method of speech. It was, in general, a very good cast, but I must give special credit to John Latham, the heroine, who succeeded in being essentially feminine even while singing. Another Oscar.

Anthony Hopkins' play was the best for five years, with no dull moments and a witty script aided by a number of original twists.

The music was very pleasing on the ear and the pianists played better together than usual. Some of the tunes will be whistled for months. The record should be well worth owning.

The singing was average with the exception of Eric Harley, who never let us miss a word with a very polished delivery. I think the rest of the singers would have done better if more attention had been given to words rather than volume of sound. The hero and heroine doing the twist in the Surgeons' Room was an excellent idea very well put over. I am also suspicious of the stage carpet. This, with the elevation of the stage, gave a bigger area, but the acoustics suffered. This theatre is normally easy for the singer. Next year's producer, please note.



Madclean, Shamm and Sharkskin

The scenes were simple but effective and no dirty looking drapes this year. The scene changing was swift and annoying pauses between the same were absent.

I, from the second row was too near to judge the make-up properly but would guess it was good as was the lighting and sound effects.

As usual, we started at eight twenty. It is difficult to get dinner and arrive at eight and a well-fed audience is desirable. Why not make it eight fifteen and start on time?

T. H. HILLS

The Play was produced by
MARK RAKE and STEWART CAMERON.

Words and Music by
DICK SPURRELL, TONY BRON and DRUMMOND RENNIE.

THE CAST *(in order of appearance)*

Professor Boloni	*Eric Harley*
Dr. Shamm (A Senior Physician)	*Michael Pearson*
Mr. Sharkskin (A Casualty Surgeon)	*John Clarke*
Dr. Madclean (An Assistant Physician)	*Martin Conybeare*
Jerk Hammer (A Houseman)	*Christopher Adams*
Prunella Belt (A Staff Nurse)	*John Latham*
Mr. Florrie (A Young Surgeon)	*Cyril Chantler*
Dr. Hardkick (The Devil)	*Anthony Child*
Dr. Flauntze (Another Physician)	*Michael O'Brien*
Dr. Moanahan (A Dermatologist)	*Farhad Navab*
Cerberus (A Canine Mosaic)	*Channi Kumar*
Dr. Charlatan (Medical Records Officer)	*Peter Newbold*
A Records Clerk (Another Mosaic)	*Anthony Russell*
A Policeman	*Derek Dennis-Smith*
A Patient	*Brian Worthington*
Dr. Bright	*Mark Rake*
Dr. Addison (Shades)	*John Hern*
Dr. Hodgkin	*Anthony Thomas*
Sister Hopelis	*Ian Roberts*
A Horse	*Ann Coxon* / *Annette Tattersall*
A Postillion	*David Cooper*
Commentator	*Christopher Wharton*
Bunnies	*Miss Egwuatu*, *Miss Hern*, *Miss Cooper*, *Miss Thomas*

Stage Managers	Christopher Mallinson, Norman Ramsbottom, Gordon Reeves
Lighting	Jim Brammer, Nigel Thompson, John Robinson
Sound	Tony Milner, Anthony Davis, Mike Breeze, Paul Lieberman
Assistant Producer	Julie Gardner
Business Manager	Ian Roberts
House Manager	Bill Foster
Make-up	James Willis, Douglas Ellis
Costumes	Ann Coxon, Rosemary Millis, Angela Southern, Annette Tattersall

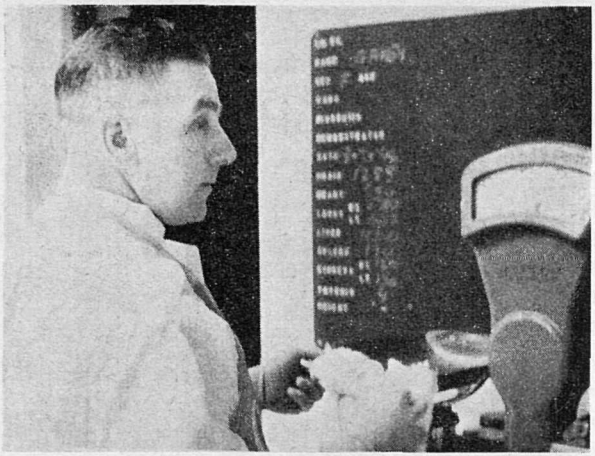
Pianos: Dick Spurrell, Malcolm Williams

Drums: Jack Gibbs

Photographs by Photographic Society

PROFILE

George Beaney



"Mine's a very dull life, a dead one in fact." I felt uneasy, he was tailoring me for a coffin and I could feel his warm breath on my cold vanquished body as he proudly set up the drip of embalming fluid. He is a person who we hope is not one of us, like the public hangman or the ghoulish ferryman of Virgil and Dante. The parodox is that George Leonard Beaney is just like you and, I shudder to say it, I. His father was a book dealer and George was the youngest of his eighteen children. As a Bermondsey lad, he left school at fourteen and took a job dusting bottles for Mr. Davies Collie, surgeon and curator of the Gordon Museum. He became very interested in the wax dissection models of Joseph Towne and naïvely determined to copy the work that he had been told was unrepeatable. One week-end he bought a bicycle for five shillings and cycled to Reystone, Herts, Towne's birthplace. However, George arrived pennyless and was forced to spend that night in the local warehouse. He returned to Guy's determined to make his own models despite his abortive attempt to discover the secret of the enigmatic Towne's work. Some time later, he did succeed in constructing replicas of an ear dissection for Mr. Reading. 1939 saw his enlistment to the R.A.M.C., followed by service in France, North Africa and Italy, he attained the rank of sergeant although he did not enjoy service life. On demobilisation he returned to the Anatomy Department under Professor Willis, but it wasn't long before a lifelong ambition was realised when he became Superintendent of the Mortuary, the position having fallen vacant.

George Beaney is married and his only son is studying embalming, George being a member of the British Institute of Embalmers, I am assured of cadaveric preservation and good cosmetic effect. He has an enquiring mind and is working at present on the effects of climate and embalming on the corpse. At the Educational Convention of 1963 he gave lectures on both growth of bacilli, and blood to the British Institute of Embalmers at Blackpool. As man's ultimate surgeon he sometimes eviscerates twenty bodies in a week whilst at home he loves playing chess with his son.

Mr. Beaney is also a talented inventor and he has shown great ingenuity but he has had little commercial success as yet. He has designed an elaborate thief-proof camera, an immovable hair pin and some sort of football-pools random sampling system which owes no allegiance to Horace Batchelor. He enjoys Omar Khahyam's "Rubaiyat" and any philosophy he has is derived from this; for him there is no life after death, only personal continuation through one's progeny. He shows concern over the process of dying but remains unconcerned by death itself. It is strange that those concerned so intimately with death should not be spared. There is something uncanny in his presence but I feel that I have met my Pilot face to face although I still have to cross the bar.

REVIEWS

HANDBOOK OF HISTOPATHOLOGICAL TECHNIQUES.

by C. F. A. Culling. 2nd edition. Butterworths, 1963. Pp. 553. *Price* 65s. 0d.

This second edition presents new sections on fluorescent antibody techniques, sex chromatin, chromosomes, exfoliative cytology and electron-microscopy. The new section on enzyme histochemistry has been well presented, but most of the methods cited in lipid and protein histochemistry are antiquated and have now been superseded by more sensitive and technically easier methods. No section is included on photomicrography.

A broad field is covered in a lucid, basic and simple way and, for this reason, the book clearly remains an invaluable text for the I.M.L.T. and similar examinations in histological technique. However, the hope expressed in the preface that this edition will also function as an *up-to-date reference* book can hardly be—and has not been—realized in a text that aims to be a primary grammar of the subject. The extent of the bibliography and the penetration into each topic is too limited by the very nature of the book to permit it to be a comprehensive technical reference.

C. W. M. ADAMS.

ANAESTHETICS FOR MEDICAL STUDENTS.

by Gordon Ostlere and Roger Thyce-Smith. Churchill. 1963. Pp. 126. *Price* 12s. 6d.

There is no reason why the 5th edition of this book, with its revised text, should not be as popular as its predecessors. As before, the emphasis is on safety in anaesthesia rather than refined technique, but the book provides a guide to various methods for use by the "occasional" anaesthetist, before and after qualifying.

The preparation of the patient, the signs of anaesthesia and post-operative complications are dealt with briefly but adequately. One must particularly commend the general section on anaesthetic drugs, listing advantages, disadvantages and special uses in almost tabular form. Though somewhat dogmatic in places, this will be forgiven by most students grateful for the clarity of the approach. A useful chapter on the management of the shocked patient, in or out of theatre, will also be appreciated. As follows from the author's intentions, anaesthesia of midwifery and in children, and techniques of local and spinal anaesthesia received but brief consideration, and even this is useful.

In a book so short, little space is devoted to mechanism of action, and this loss is sometimes felt (for example, in the discussion of muscle relaxants). Even so, the easy style and concise quality of the text—and the price—make this book an ideal companion to anaesthetics.

BRENDAN HICKS.

AUSCULTATION OF THE HEART.

by R. W. D. Turner. Livingstone. 1963. Pp. 42. *Price* 3s. 6d.

This short booklet is an attempt at a comprehensive guide to auscultation of the heart. It is written simply and good use is made of diagrams to illustrate the timing of the various events in the cardiac cycle. Readily acceptable suggestions are put forward to explain the mechanism of the sounds and murmurs. These make the book more readable and are particularly useful in sorting out the dominant bruit when two or more are present. My only adverse criticism is on the inclusion of some rather irritating quotations, e.g.:

" Give me a calm and thankful heart
From every murmur free".

This booklet is particularly useful to students beginning their clinical training as it provides a good systematic approach to auscultation of the heart.

A. D. MILNER.

SPORT

Guy's v. St. Thomas's. R. Strickland scores a second goal for Guy's.

HOCKEY

Congratulations to the Hockey Team on a fine victory over St. Thomas's to take the highest honours in the Inter-Hospitals' Cup. As so often happens in the Cup competitions the odds on the favourites were upset, and Guy's, led by Loader and magnificently supported by his team, humiliated the opposition, to defeat them 2—1. The St. Thomas's side contained two current International Caps and one previous Cap, and with every Guy's man playing the game of his life, it soon became apparent that St. Thomas's were going to be taught a lesson. The Guy's supporters who were present in force did much to spur their side on to victory with vociferous encouragement.

The Club suffered its last defeat way back in November, and only two sides have succeeded in gaining victories against Guy's this season, Kingston Grammar School and H.A.C.

Guy's is the only side to have achieved victories in the Senior and Junior Cups in the same season, which they did in 1959. This year again they have an extremely good chance of repeating the feat, as with the Senior Cup already sewn up the Junior side are favourites in the Junior Cup to play Bart's in the final.

RUGBY FOOTBALL

Now that the evenings are drawing out and the Season moves to a close it is time to reflect on past successes or failures. Under the leadership of Baker, the team this season has succeeded in providing its supporters with some memorable games and has behind it one of the best records for many years—including one notable run of eight games with only one defeat.

In the Semi-final of the Cup the team suffered one of it's most disappointing defeats. On a grey overcast day a biting wind swirled into the stands and succeeded in removing practically every calorie from numbed supporters bodies clad in thick coats. At half-time in spite of abominable conditions the Guy's supporters were feeling extremely pleased with their fifteen representatives and pictures were conjured up of that glorious final three years ago. Unfortunately the St. Thomas's side realised their plight on the change over, and galvanised into action by Thomas,

their canny scrum-half, they deprived Guy's of their chance to gain a place in the final with two fine tries.

It was a pity that on occasions, disgruntled members of a rather sparse Guy's supporters brigade, rather than applaud a fine movement against their side, thought fit to project missiles at those taking part in the game. Although Guy's students have always been renowned for their rather violent preliminaries, it creates a very bad impression when they involve the players.

Reports and Results

HOCKEY

GUY'S v. ST. THOMAS'S

Hockey Final

At Teddington 26th February, 1964

Result: won 2—1

Among the hospital hockey sides this year the outstanding division is the defence and in United Hospitals there has been no problem in the selection of a half-back and back line. The good forwards are few and well distributed in the hospitals, being supported otherwise by enthusiastic rather than skilled players. Guy's have in D. Loader, K. Haynes, A. Hirst and C. Brookes a powerful defensive quartet who play regularly for U.H. St. Thomas's have in W. N. Livingstone and J. Dhillon two backs of International calibre and in C. Vokins, a centre-half of above average hospital standard. Consequently, previous to the hockey final it was anticipated that scoring, if any, would be low.

The final was played once more on the beautifully groomed St. Mary's pitch at Teddington, supported by about 50 friends and devotees. The first half was surprisingly slow and uninspired and neither side were able to make any coordinated progress. R. Stickland (Guy's) and M. Read (St. Thomas's) received little help from the other forwards. The latter, fresh from the British tour of India, usually dribbled himself to a standstill in vain attempts to penetrate the Guy's defence. Towards the end of this half, however, the Guy's forwards began to find their stride and began several dangerous moves only to be halted by the powerful reverse stick tackles of N. Livingstone and the uncanny anticipation of J. Dhillon. Neither goal-keepers really touched the ball.

The second half might have been an entirely different game. It is obvious that Guy's do in fact have a talented forward line and the two freshmen, M. Appleby and P. Bennet, combined well with that old stager, R. Strickland. The St. Thomas' defence began to crumble and from a well-placed pass of J. Sedgewick, M. Appleby hit a scorching reverse-stick shot into the corner of the net. The St. Thomas's backs were then drawn up into attack in an attempt to reinforce a rather ineffective forward line, but leaving great gaps in defence. Ten minutes later R. Strickland found himself breaking into more than the accustomed trot in the direction of the St. Thomas's goal with only the 'keeper to beat. His shot missed the 'keeper and clipped the back-board. The sages on the touchline thought it was all over, but N. Read later beat about four defenders to be obstructed in the circle. From the resulting short corner D. Loader kicked the shot away. N. Livingstone did not miss the penalty flick. With renewed gusto St. Thomas's hurled themselves in attack but found A. Hirst indomitable and impenetrable to the end.

Professor Butterfield presented the cup to a grinning D. Loader. When last seen he was still grinning.

Team: A. Hirst; D. Loader (Capt.), K. Haynes; J. Crafts, C. Brooks, J. Sedgwick; R. Carruthers, R. Strickland, M. Appleby, P. Bennett, P. Liddiard.

RUGBY FOOTBALL

GUY'S v. St. THOMAS'S

Semi-final, Inter Hospitals' Cup

At Richmond. 18th February, 1964.

Result: lost 3—11

St. Thomas's deservedly won this hard cup game by a goal, try and penalty goal to our one try, to put them through to the Final of the Hospitals' Cup when they meet St. Mary's. The first half of the game was a repetition of many closely fought cup games with the packs striving for supremacy, giving nothing away, and allowing the backs only an occasional glimpse of the ball. In the second half our opponents changed their tactics completely, took chances, and kept the ball moving to produce two of the finest tries seen in cup games for many years.

Guy's opened with the wind against them and play remained around the half-way line for twenty minutes, neither side dominating, although Guy's produced some rewarding forward rushes only to be driven back by good touch kicking by the St Thomas's scrum half. Only one five-yard scrum near the St. Thomas's line looked threatening at this stage and our opponents relieved the pressure by taking the ball against the head. Play moved back towards the Guy's 25 until a dropped pass by the St. Thomas's backs was taken through by our threequarters, Biggs cleverly controlling the ball with his feet and finally racing 25 yards to win the touchdown and score a try near the corner flag. A few minutes later St. Thomas's narrowly missed a long penalty, but converted a second one from 30 yards out to even the scores. Throughout this half the forward battle was very even with St. Thomas' having the edge in scrums and lineout, and Guy's the upper hand in the loose.

The second half opened with our opponents' half-backs keeping play near our line by clever kicking and launching attack after attack almost resulting in a number of tries. The Guy's defence held out for a while, but even hard tackling and valiant falling could not prevent the inevitable try which came after 25 minutes following a brilliant handling movement between forwards and backs. After this score there was no holding St. Thomas's who threw the ball around freely, always looking dangerous, whereas Guy's could not break away from their tight forward game. A further converted try ten minutes from the end resulted in a final score of 3—11.

Team: A. M. Morris; D. A. Biggs, C. J. Wright, A. J. Allan, R. Kerner, J. A. Edgar, H. W. MacGregor; J. E. Davies, E. S. Price, R. Stansfield, P. K. Peace, A. J. Kingdon, R. Brown, D. J. Hendrick, I. A. Baker (Capt.).

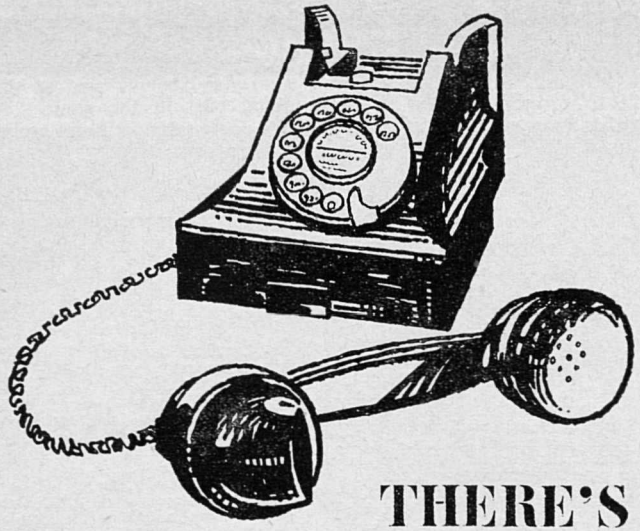
S. COOKE

1st XV v. EXETER

At H.O.P. 22nd February, 1964.

Result: lost 3—10

On Saturday, February 22nd, Guy's entertained Exeter at H.O.P. Despite seeing a lot of the ball the Hospital lost by two goals to a



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If you are a medical graduate you may be commissioned in the Royal Air Force immediately in the rank of Flying Officer. You may then spend your pre-registration year seconded to a civilian hospital. On registration, you will become a Flight Lieutenant with possible earnings of over £2000 a year. To qualify for this scheme you must undertake to serve for at least three years after full registration. Your pre-registration year counts towards your gratuity following short service commission and towards retired pay on permanent commission. The gratuity on completion of a three year commission is £1,500 plus £200 for the full pre-registration year; on completing a five year commission the gratuity is £3,000 plus £200 for the full pre-registration year. These gratuities are tax-free.

For full information on the latest conditions for doctors, specialists, graduates and cadets in the Royal Air Force, write to ***The Director-General of Medical Services, Air Ministry*** GOS1D, ***1 Tavistock Sq. London WC1***

The Royal Air Force

try, in an indifferent match that rarely rose above mediocrity. Fine footwork was made difficult by the sticky and fairly heavy pitch.

The Hospital had hardly settled down when Exeter opened the scoring. In only the fourth minute, Carless, the visitor's nippy little stand-off, dummied through to score after receiving from a set scrummage. The full-back duly converted. However, the Hospital fought back and produced the best movement of the game when beautiful handling resulted in the ball being worked for nearly the length of the pitch; with fine interpassing between Wright, Baker and Allan, the movement ending with the latter being forced into the corner flag.

The game developed into a dour, rugged battle with the Guy's backs seeing a lot of the ball. Credit must be given to the forwards for their lineout technique with the "jumpers" often catching cleanly and neatly dispatching. The three's, however, though passing along the line appeared at times slow footed and ponderous. On one exceptional occasion Wright broke speedily and Biggs seemed certain to score but the referee brought play back for a forward pass. Guy's continued to press and forced the very experienced solid Devonian full-back to fly kick over his dead ball line when approached by Biggs. The set scrummaging was going with the head but often the Guy's heel was slow. One always had the feeling, however, that the Hospital's backs had the beating of their opponents on the outside; moreover the visitors centres were not coming up together.

The second half started evenly, but MacGregor was robbed from the base of a set scrum resulting in a threequarter movement by the West Countrymen; this was partially blocked but the blind side forced his way over for a try. The score was taken to 10—0 when the try was converted. In the lineouts, Kingdon and Peace continued to jump cleanly and from such a piece Edgar made a fine break; this was carried on by Hendrick and Baker (as customary, eagerly backing his outsides) for Wright to receive the ball on the burst. After running strongly he was floored just short of the line. From a scrum in this position Guy's obtained a clean heel and Allan flashed through to touch down between the posts. Morris failed to convert.

The visitors' scrum half closed the game up by playing the touchline, but Guy's fought gamely to the end and the last few minutes produced heated play that was all too late in coming.

P. DAVIES

Team: A. Morris; D. Biggs, C. Wright, A. Allan, R. Kerner; J. Edgar, H. MacGregor; J. Davies, E. Prile, R. Stansfield, P. Peace, A. Kingon, R. Brown, D. Hendrick, I. Baker (Capt.).

GUY'S v. ST. THOMAS'S

Junior Cup Semi-final

At H.O.P. 26th February, 1964.

Result: lost 5—12

Guy's lost this semi-final by two tries and two penalties to a goal.

A gusty wind was blowing diagonally across the field against Guy's in the first half and the backs found handling tricky. In fact, Thomas's first try came after Guy's handling had broken down in the Guy's "25" and the opponents' wing picked up to gain a clear run to the line. The Hospital continued to gain possession, however, and took play down to the St. Thomas's line. A well-timed scissor movement between the centres, Fleming-Jones and Rowlands appeared to result in a try, but the pass was adjudged forward. Guy's kept pressing, but the backs were unable to break through. Eventually, towards the end of the half, Guy's scored from a movement starting on their own "25". Willard, on the wing, fielded a diagonal kick and broke away. He ran well until challenged and then kicked ahead. Guy's forwards were well up and Thomas's desperately kicked the ball across their own line. From the ensuing scrum, the pack attempted to push Thomas's over, but this failing, a quick heel put the backs in motion and Fleming-Jones accelerated into a half-break and put Mathias over in the corner. Myall, kicking into the wind, converted excellently from the touchline.

Guy's crossed over, seemingly on top in their play as well as in the score. From the restart, however, play became increasingly scrappy. Possession was still obtained, with Lewis having the better of the hooking duel and Gourley and Williams taking the ball well in the lineouts, but binding became slacker especially in the loose and Thomas's forwards came through. Handling was hurried and much of the ball was wasted. The centres were unable to penetrate and often unable to pass to their wings with advantage. With neither side looking like scoring, St. Thomas's were awarded two penalties in quick succession and went into the lead. This gave them new life and they became quicker on the loose ball and around the field than Guy's. Their second try came from a blind-side move from a loose-maul.

This was a disappointing result, especially for the captain, Gourley, whose enthusiastic leadership deserved better. As often happens in Cup games, the side playing better on the day gains success. In the Hospital's fifteen, the centres did much good work in defence and James, a prop forward, was outstanding in the loose.

MOTORING CLUB

U.H. and U.L.M.C. ANNUAL RALLY

Guy's were invited by United Hospitals and University of London Motoring Club to defend their shield in the 1964 Championship Rally, on the night of 25th/26th January; Guy's having retained the shield for the last four years.

Three teams were entered; the A team consisted of M. J. Burke, E. D. Lettington and H. Preiskel: the B team, F. M. Titley, J. Alexander and M. Tyne: the C team, A. Davies, M. McMahon and J. Brown.

The start was on the A21 at Badger's Mount; the first car leaving at 9.01 p.m., despite the fact that they had come straight from the bar at Honor Oak Park.

The navigation consisted of eleven sections which varied from tulips to so called simple map references, which really called for amphibious vehicles. Drivers found themselves as far south as Lewes and returning by lanes so narrow as to be almost invisible on the map. All sections were timed to the minute and towards the finish "press on" type of driving was the order of the evening to arrive within the allowed time.

One Crew appeared to have been pressing on through a very muddy field; nevertheless, all but two of the Guy's crews finished.

The outcome was that Guy's retained the shield having six cars in the first eight. The placings were as follows:—

1st—A. Davis and N. Ramsbottom.
3rd—E. D. Lettington and K. C. J. Hughes.
5th—F. M. Titley and F. W. Merrifield.
6th—M. J. Burke and P. R. Dodd.
7th—M. Tyne and C. Quick.
8th—H. Preiskel and R. Heath.

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Provincial

The Guys Hospital Office, which is opened for your especial use,
is under the management of Mr. W. C. Frankum, Southwark Branch,
12-14 Southwark Street, London S.E.1, and enquiries will be welcomed.

HOSPITAL INFORMATION

APPOINTMENTS VACANT

GUY'S HOSPITAL and
S.E. METROPOLITAN REGIONAL
HOSPITAL BOARD

Applications are invited to fill an established vacancy as **Senior Registrar in Psychological Medicine** to the Board of Governors of Guy's Hospital and the South East Metropolitan Regional Hospital Board. The appointment, which will be made jointly by the bodies concerned, will be until 30th September, 1966, and will be held in the first instance at the Regional Hospital and from 1st October, 1965, until 30th September, 1966, at Guy's Hospital. The post in the Regional Hospital will be held in the Bexley Group. The post, which will be reviewed annually on 30th September, is subject to the Terms and Conditions of Service of Hospital Medical and Dental Staff (England and Wales). Forms of application are obtainable from, and should be lodged with, the Superintendent, Guy's Hospital, S.E.1., not later than **16th March, 1964.**

GUY'S HOSPITAL, S.E.1

Applications are invited for the post of **Senior Registrar in the Department of Anaesthetics** with duties to commence on 1st May, 1964. Application forms are obtainable from and should be lodged with the Superintendent, Guy's Hospital, S.E.1., not later than **20th March, 1964.**

GUY'S HOSPITAL MEDICAL SCHOOL,
LONDON, S.E.1

Applications are invited for the appointment of **Research Fellow** in the **Cardiac Department** to carry out a study of the application of ballistocardiography to aortic valve disease. The post will provide opportunities for clinical work and would be suitable for someone working for a higher qualification; a special interest in physiology or physics would be an advantage. Salary, according to experience, in the S.H.O.—Registrar range. Further details of the post can be obtained from and applications should be sent to the Dean, Guy's Hospital Medical School, London Bridge, S.E.1.

GUY'S HOSPITAL MEDICAL SCHOOL,
LONDON, S.E.1

Applications are invited for the post of **Junior Lecturer** in the **Department of Anatomy** with duties to commence on 1st April, 1964. The starting salary will be within the range of £1,200 to £1,400, plus £60 London Allowance, with superannuation and family allowance if applicable. Application should be made not later than **20th March, 1964,** on a form obtainable from the Dean.

HOUSE APPOINTMENTS

March 1st, 1964

Assistant House Surgeons

Mr. Lawrie — Mr. I. Vadasz
Appointed for 6 months, the first 3 as A.H.S.

Mr. Glover — Mr. A. E. Davis
Appointed for 6 months, the first 3 as A.H.S.

Mr. Brain — Miss C. M. Britton
3 *months*

Mr. Beard — Mr. V. E. Egwuatu
3 *months*

Assistant House Physicians

Dr. Mann, Dr. Scott and Dr. Bishop — Mr. N. Ramsbottom
Appointed for 6 months, the first 3 as A.H.P.

Dr. Hardwick, Dr. Trounce and Dr Deuchar — Mr. M. B. Williams
Appointed for 6 months, the first 3 as A.H.P.

Dr. Baker, Dr. Houston and Dr. Grimble — Mr. W. G. Reeves
Appointed for 6 months, the first 3 as A.H.P.

Dr. Kauntze and Dr. Joiner — Mr. J. N. Davies
Appointed for 6 months, the first 3 as A.H.P.

Professor Butterfield and Dr. MacLean — Mr. M. N. Maisey
Appointed for 6 months, the first 3 as A.H.P.

Casualty Officers

Mr. C. B. T. Adams
Mr. D. K. C. Cooper
Mr. R. Kumar
Mr. J. M. Latham
Mr. M. C. Pearson
Mr. M. O. Rake
} 3 *months*

House Surgeons

Mr. Eckhoff — Mr. B. S. Worthington
3 *months*

Professor Atkins — Mr. A. D. Milner
6 *months*

Mr. Wass — Mrs. J. C. Gardner
3 *months*

Mr. Blackburn — Mr. R. I. Kennedy
6 *months*

House Physicians

Dr. Mann, Dr. Scott and Dr. Bishop — Mr. E. H. Harley
3 *months*

Dr. Hardwick, Dr. Trounce and Dr. Deuchar — Mr. W. D. A. Foster
3 *months*

Dr. Baker, Dr. Houston and Dr. Grimble — Mr. A. S. Russell
6 *months*

Dr. Kauntze and Dr. Joiner — Mr. C. N. Garstang
6 *months*

Professor Butterfield and Dr. MacLean — Mr. P. C. H. Newbold
3 *months*

Resident Obstetricians

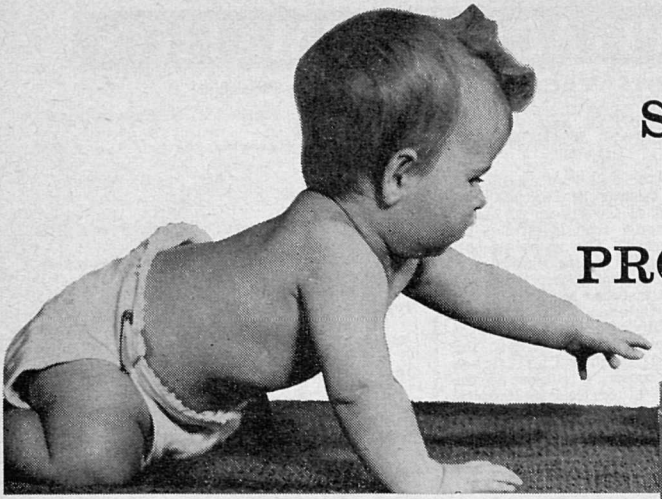
1.11.63—30. 4.64 — Mr. D. A. Rees
1. 1.64—30. 6.64 — Mr. G. R. Peachey
1. 3.64—31. 8.64 — Mr. T. Middlemiss
1. 5.64—31.10.64 — Vacant

Throat and Ear House Surgeons

Mr. G. Ebrahimzadeh — 3 *months*
Mrs. P. N. Hall-Matthews — 6 *months*

Orthopaedic House Surgeons

Mr. M. E. Conybeare — 3 *months*
Mr. F. Navab — 3 *months*



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1.11.63—30. 4.64 Mr. D. Denis-Smith
1. 5.64—31.10.64 Vacant

Neurological House Physician

Mr. J. E. C. Hern 6 *months*

Genito-Urinary House Surgeon

Mr. N. J. Barwell 3 *months*

House Surgeons to the Thoracic Unit

Mr. F. D. H. Birkett 3 *months*
Mr. K. M. Pagliero 3 *months*
(S.H.O.)

Children's House Physicians

Miss A. Y. Coxon 3 *months*
Mr. C. Chantler 6 *months*

House Physicians in Clinical Pathology

Miss R. R. Millis 3 *months*
Miss J. D. Gatenby-Davies 6 *months*

House Physician to Dr. Bishop and Professor Butterfield and Dr. Wayte and Mr. McArthur

Mr M. D. Middleton 6 *months*

House Physicians in the Department of Psychological Medicine

1.10.63—30.3.64
Dr. Stafford Clark Mr. P. A. Murray
1.10 63—30.3.64
Dr. Fleminger Mr. P. Kornan
1. 4.64—30.9.64
Dr. Stafford Clark Mr. P. Kornan
1. 4.64—30.9.64
Dr. Fleminger Mr. P. A. Murray

R.M.O.s in Nuffield House

1.12.63—31.5.64 Mr. W. J. Appleyard
1. 3.64—31.8.64 Mr. M. D. O'Brien

Resident Anaesthetists

1.3.64—31.5.64 Miss A. Tattersall S.H.O.
1.3.64—31.5.64 Miss R. R. Norton
1.3.64—31.8.64 Mr. J. C. Simpson S.H.O.
1.3.64—31.8.64 Mr. I. M. Boyd

JOYCE GREEN HOSPITAL

House Physician: Mr. D. J. H. Richmond.

LEWISHAM HOSPITAL

House Surgeon to Mr. Cavendish: Mr. A. Thomas.

NEW CROSS HOSPITAL

House Physician in General Medicine: Mr. S. Freudenberg, S.H.O.

PASS LIST

SOCIETY OF APOTHECARIES

Final examination, February, 1964

Medicine

D. G. Nancekievill P. B. Robinson

Midwifery

D. G. Nancekievill

NURSING NEWS

Left

Staff Nurse M. Edwards from Esther.

PERSONAL

Special rates for Guy's Staff, Students, Nurses and Subscribers to the Gazette. 5 words 10s. 6d. 15 words 21s. 0d. Box Numbers 1s. extra.

Ordinary rates 15s. 0d. 5 words. Box Numbers 1s. extra

SITUATIONS VACANT

Wanted three S.R.N.'s with part 1 Midwifery for Neilburg Union Hospital, Neilburg, Sask., Canada. Modern 12 bed hospital with excellent theatre and obstetric facilities under experienced Guy's trained doctor. Neilburg is a progressive, pleasant small town in attractive farming community close to Alberta border. Good living quarters. Starting salary $325.00 per month less $43.50 for living allowance. One month holiday with pay after one year of service. Sick time and pension plan as per S.R.N.A. Initial contract one year's service in return for advanced one way fare, repayable on monthly basis. For further information write:- Graham Spry, 19 Chester Mews, Chester Street, London, S.W.1.

Trainee Assistant, British, male, with own car, required immediately. Mixed Private and N.H.S. practice. Excellent opportunities for training and study time. Dr. S. Balfour-Lynn, 6a, Palace Gate, W.8 KNI 2468.

BIRTHS

BULLOCK.—On December 13th, 1963, at Norley House, Seaford, Sussex, to Yvonne (née Baines) and Colin Bullock, a daughter, Belinda Louise, sister for Amanda Sue.

LOVELL.—On 5th January, 1964, to Sheila (nèe Grundy, S.R.N, S.C.M.) and the Reverend John Lovell, a son, Andrew David, a brother for Richard, Janet, and Rosemary.

RICHARDS:—On January 1st, 1964, at St. Mary's Hospital, Manchester, to Dorothy and Stephen Richards, F.R.C.S., a son, a brother for Jane and Aileen.

RICHARDS.—On December, 27th, 1963, in Brighton, to Sara (nèe Griffiths) and Andy Richards, a daughter, Emma Mary, a sister for Melissa.

ROBERTSON.—On 3rd October, 1963, at Maidenhead, to Helen and Kenneth Robertson, L.D.S., R.C.S., a daughter, Caroline Ruth, sister for Bruce.

WEINTRAUB.—On 9th January, 1964, at Columbia Presbyterian Medical Center, in New York, to Judith Barbara (née Levine) and Dr. Herbert Weintraub, their first child, Linda Anne.

WILLEMS.—On January 9th, at the Horton Maternity Hospital, Banbury, to Annette (née Rake) and Anthony Willems, a daughter, Nicola Diana Lucy, sister for Caroline and Isabelle.

MARRIAGES

MITCHINER-HAWKINS:—On February 8th, at St. Joseph's Church, Lytham-St. Anne's. M. B. Mitchiner, B.Sc., L.R.C.P., M.R.C.S., to Rosaleen (nèe Hawkins) S.R.N.

DEATHS

MOORE.—On December 12th, 1963, in Toronto. Robert Moore, M.B., B.S., M.R.C.P.Lond.

holidays abroad

At this rather gloomy time of year most people are thinking of where they might go for their summer holidays, and there seem to be more suggestions advertised than ever.

Greece appears to be ever more popular, but the Greek islands are visited by relatively few travellers. To linger a few days on Rhodes engenders a wish to stay for ever, to disregard time in true Greek fashion, to do nothing but lie on deserted beaches and be philosophical about life. The City of Rhodes has been ransacked in an untold number of battles, but its past is no more colourful than that of the other islands. Who could resist the temptation to visit Crete and the palace of Knosos, reputedly the home of the world's most ancient civilisation?

Turkey is always associated with Greece, perhaps because of their mutual distrust. The coast of Asia Minor must be one of the most deserted and beautiful in the world. Communication presents problems, however, as anyone who has travelled in one of the mad Turkish buses over unmade roads which zig-zag thousands of feet down to the sea will understand. Istanbul is a magnificent city, a city of great riches and great poverty, where Europe and Asia meet, with the result a fascinating mixture of people. It is disturbing to recall that (not so long ago) the Sultan would drop slave girls, weighted at the feet, from the Seraglio palace high over the Bosphorus, into the river below. For amusement.

Many do not realise how easy it is to travel behind the Iron Curtain. Visas are issued readily, and black market currency exchange rates make the cost disproportionate to distance. Avoid being lumbered with a guide in these countries. Yugoslavia is interesting and less "red" than most others. Portraits of Tito are everywhere; a "big brother is watching you" atmosphere persists. On the Yugoslav-Bulgarian border the mountains are beautiful, the roads atrocious. Perhaps Yugoslavs hate the thought of losing any tourist trade to Bulgaria!

Bulgaria is notable for its spacious, clean capital, Sofia, and for its rose liqueur. Rumania is trying to develop its tourist trade. New resorts in the Black Sea are being opened up, with many new luxury hotels. Hungary does not seem to be advertising its tourist possibilities as much as Poland or Czechoslovakia. Lake Balcton in Central Hungary is ideal for relaxation, nor should Budapest, on the

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GUY'S HOSPITAL GAZETTE

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Editors *T. C. Davis*
B. H. Hicks

Sports Correspondent *E. Tiller*

Guy's Hospital, London

Lift your glass and drink

"Ye've naught to do but mark and tell
Your neighbour's faults and folly."

This is not anarchy; it is democracy. All the great moralists, from Buddha and the Stoics down to recent times, treated the good as something to be, if possible, enjoyed by all men. And if it is to be enjoyed then it must be guarded and that is why we write to defend the unwitting and attack the unthinking. Celebrating examination success and cups galore and all the flotsam of good spirit that runs occasionally but joyfully through a student's life is great and healthy. There are always these moments and the elder statesmen amongst us recognize them, and, to put it simply, they do not mind. However, to set out in drunken stupor to dirty and smash within a bar which is used by other people is the height of selfishness. Action must be taken and the easiest and perhaps the most effective, at least superficially, is to close the bar. This has happened at Guy's in the past fortnight, and although the Students' Bar is not the most salubrious of places to drink in at least it is there and is used, or was until the non-thinkcares over-ran it.

Another effective way of dealing with these people would be to make them pay in cash for their troubles; for the refilling and reinstating of fire extinguishers, for smashed glasses and tables and for the cleaning and disinfecting of filthy floors. Perhaps then some community spirit might break through in a welter and make living here for the rest more easy and enjoyable.

Those kids

What a complex of reactions they induce, those perky, scruffy children of the Boro', at one time amusement, at another anger, or even a sort of sorrow. As they climb fences, clamber over cars, ride their trolleys, wander round the Park, hurl stones (or abuse) at Guy's august windows, one's patience begins to fail and hackles rise. "Little horrors" becomes a euphemism for real feelings, even in the presence of some little-admitted affection, and the most humble of us are soon in our pulpits pronouncing on the shocking standards of behaviour amongst young "locals".

When our anger abates we look beyond the children to the blocks of flats, new in their red-brick or grimy in their age, we see the soil in which these fresh seeds have flowered, and then we may redirect our anger. We may feel angry that these young horizons should be so limited by their urban panorama, impatient that our mass education has not yet opened the minds of their parents, in their turn raised against a background of poverty and ignorance.

And can we still be angry at the children? As we are saddened for them, we comfort ourselves with their improvement, with their better health, and their slight hope of a better future. But there is further comfort.

These children, despite the dirt, despite the apparent deathliness of their soil, despite this backwater of our society's culture, have survived and more than survived. They have a fullness of life that their parents may well miss, a verve in the business of living, an aggressiveness in their mischief and their audacious rudeness, a confidence in their young personalities that one can at least admire, almost envy. We regret the stage on which they play, but how they play their parts to the full! With a Cockney sharpness in their wit (and in their acquisitiveness!) and a coolness born of no respect for any man, their repartee is worthy of the debating chamber. From a childhood naiveté they can draw on a superficial innocence that might throw suspicion onto an angel. Their schemes, their play, are permeated with an imagination unlimited in its brightness, a democracy of force, and that same full-blooded zest as for their every activity. Their sorrow, their anger, their delight is full and frank, their memory for hurt short. We may no longer speak from our lofty pulpit, unless we dare to cast the first stone. We may think again, with Pope, of

This child of dirt, that stinks and sings.

Dogs and Crocs

It must have relieved the despairing human moralists of to-day to read, in a French journal, of a new addictive craze among canine patients. Some dogs (French, of course) of lesser moral fibre, have formed the habit of sniffing at the exhaust pipes of their owners' cars, to wander off in a hazy euphoria induced by mild carbon monoxide toxication. No treatment has yet been described, but certainly one shudders at the prospect of group therapy involving more than two of the species. More serious theoretical problems are raised by the report of the crocodile in a Warsaw circus which was pacified for purposes of injection by a fakir, who "talked it into a trance". If a Polish fakir can hypnotise a crocodile, one supposes that French vets. should be able to manage psychotherapy for Canis familiaris addictus. Now there's a problem for the post-Freudians.

We were delighted to read that Dr. W. N. Mann, a former physicial to the household, has been appointed a physician to the Queen. We congratulate him on this honour.

We also offer our congratulations to Dr. W. D. Hayley on his appointment as Consultant in Physical Medicine to the Southend-on-Sea group of hospitals, and to Dr. A. J. Bron on his award of the Sir William Lister Travelling Scholarship by the Royal College of Surgeons.

GUY'S DIARY

MARCH

EXHIBITION.			*Haematuria.*
24th	T.	1.00	Mr. ECKHOFF. Clinical Lecture. *Fractures of the Facial Skeleton.*

APRIL

EXHIBITION.			*The Hip.*
2nd	Th.	1.00	Dr. HARDWICK. Clinical Lecture. *Colitis.*
3rd	F.	1.00	Dr. HILLS. Clinical Lecture. *An Experiment in Barium Meals on Video Tape.*
7th	T.	1.00	Dr. MANN. Clinical Lecture. *Bronchial Asthma.*
9th	Th.	1.00	Mr. BEARD. Clinical Lecture.
13th	M.	1.00	Dr. BAKER. Clinical Lecture.
14th	T.	1.00	Mr. BLACKBURN. Clinical Lecture
16th	Th.	1.00	Dr. DOW. Clinical Theatre.
17th	F.	1.00	Dr. MACLEAN. Clinical Lecture.

NOTICES

The 50 Club

The Annual Dinner of The Fifty Club will be held on Thursday, May 14th, 1964, at The Anchor, Bankside. Details will be posted to members later.

P. F. P. LANSDOWN,
Hon. Secretary.

205, Sanderstead Road,
Sanderstead, Surrey.

Residents' Ball

Cancelling all previous announcements, I should like to say, through the courtesy of your columns, that this year's Residents' Ball will take place at the Hilton Hotel, Park Lane, on Thursday, 14th May, 1964. This is the Thursday immediately preceding the Whit-week-end.

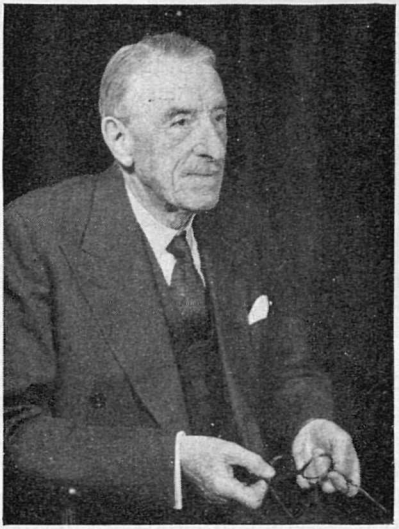
Anybody working at the hospital, as staff or student, will be welcome; they are particularly encouraged to bring a party. Further details will be announced soon when tickets will also become available.

Yours, etc.,

E. H. HARLEY,
President of the Residents.

Guy's Hospital,
London, S.E.1.

Arthur Ormond



THE death of Arthur Ormond removes a very senior member of the Consultants Emeriti.

He entered Guy's in 1891 and qualified in 1896 ; held the position of R.O. and H.S. to Henry Howse and W. H. A. Jacobson, and became F.R.C.S. in 1898. He visited Berlin and Vienna and on his return was appointed Ophthalmic Registrar and Tutor. Many students were grateful for his teaching. In 1900 he was appointed Assistant Surgeon to the Royal Eye Hospital and in 1906 Ophthalmic Surgeon to Guy's. He interested himself in the Students' Club, of which he was Secretary and with Sir Cooper Perry (the then Superintendent) initiated the Massage Department.

For many years he worked for St. Giles' Home for Lepers, of which few of his contemporaries were aware. On the outbreak of the 1914-18 War, Ormond was put in charge of the ophthalmic section of the 2nd London General Hospital to which eventually all eye casualties were referred. He was mentioned in dispatches, awarded C.B.E. (Mil.) and raised to the rank of Brevel Major.

In a pamphlet published by the M.R.C., Ormond wrote a Report and analysed 15,584 cases treated at a Home Hospital, a tremendous task.

He was appointed Honorary Ophthalmic Surgeon to St. Dunstan's, of which later he was made a Governor. It must be evident that Ormond was an indefatigable worker—to meet him no one would realise what a vast number of people must have benefited from his skill and experience: he was one who hid his light under a bushel. We sympathise deeply with his widow, who was his unfailing support in all his activities.

R. M. C. Butler, M.B. B.S., D.L.O.

Dr. Michael Butler was a victim in the Britannia air disaster at Innsbruck on February 29th, at the early age of 32.

This sudden tragedy cut short a career full of promise in which he had already achieved no mean skill, and won the admiration of his colleagues and seniors alike.

He started his medical education at Guy's in 1950, qualifying with the London University degree in 1955, and at an early stage became attracted to the E.N.T. Department. He obtained the E.N.T. house surgeon appointment at Guy's to Mr. R. J. Cann, and in 1957 held a similar post at the Kent and Sussex Hospital, after which he gained the D.L.O. diploma. He then joined the R.A.F. Medical Service for a 3-year commission during which time he spent 18 months as E.N.T. Specialist for the Middle East at Aden, travelling over a wide area to outposts and developing a large circle of friends and grateful patients.

On his return to civil life he settled in London for a further period of post-graduate study for the Primary Fellowship, doing part-time E.N.T. work at Epsom Hospital, and later a general surgery appointment at the West Middlesex Hospital, where his interest in plastic surgery was beginning to develop.

Through his mother's family he came of a long line of doctors dating back to the early eighteenth century.

He drove himself to a degree of perfection in his learning and in his practical ability, which was also noticeable in his meticulous attention to detail. This left little time for hobbies, apart from his love of cars, but he was an amusing and charming mimic and raconteur. He had a strong underlying sense of purpose and of right which he inherited from a devoted home life.

All those who knew him will miss him, and will share something of the sorrow felt by his parents and sister.

NOTICE

Missing Books

The following books are missing from the Physics Department Library. If any of these books are found, I should be grateful if they could be returned to the Secretary of the Physics Department.

Applied Mathematics for Engineers and Physicists. By Louis A. Pipes.

Electron Physics and Technology. By J. Thomson and E. B. Callick.

A Compendium of Mathematics and Physics. By D. S. Meyler and O. G. Sutton.

Comparative Physiology of the Nervous Control of Muscular Motion. By G. Hoyle.

Man and Energy. By A. R. Ubbellohde.

Physical Methods in Physiology. By W. T. Catton.

Progress in Biophysics and Biophysical Chemistry. Vol. 3.

C. B. Allsopp.

The pH of the Blood

By W. L. G. GENT and J. R. TROUNCE

Intra-cellular pH* values are not very exactly known, but the available evidence suggests that for the most part these values are about pH = 7 units. At this pH both metabolites and their enzymes will be in the form of negatively charged ions, the charge being balanced by cations, mostly K^+ and Na^+. In particular, the principal non-nitrogenous end-products of metabolism will be bicarbonate ions together with relatively small amounts of organic and inorganic acids (e.g. lactate and sulphate ions). Since these products are formed by oxidation of non-ionic substances (e.g. glucose) their formation will be accompanied by that of hydrogen ions in equivalent amounts. These will react with intra-cellular buffer systems and so not bring about a gross lowering of pH of the intra-cellular fluids. Nevertheless, the capacity of these buffer systems is limited so that the extra-cellular fluids and the blood in particular continually receive a flow of hydrogen ions as well as of the acidic anions. Because the intra-cellular pH is about 7 units, some 10% of the carbon oxidation products will be in the form of carbon dioxide. The means by which all of these substances are transported to their organs of excretion without the hydrogen ions becoming free to combine with water molecules to form oxonium ions (H_3O^+) and thus lower the pH of the blood are the subject of this discussion. Because of the linkage of a number of physico-chemical and physiological mechanisms through the pH of the blood it is convenient to consider the phenomena involved in terms of pH rather than as "acid-base balance" which emphasises more the chemical aspect of these matters. Furthermore, because of the central position of pH with respect to the various regulatory systems it follows that a defect in any one of these must bring about a change in all others. This view allows some simplification of consideration of various clinical phenomena.

The Excretion of Carbon Dioxide

The most likely normal values of the amount of bicarbonate ion and dissolved carbon dioxide** in the plasma of the adult male are shown in Table I, together with the corresponding pH values measured experimentally. By the use of the Henderson-Hasselbalch equation :

$$pH = pK_{eff.} + \log_{10} \frac{(HCO_3^-)}{(CO_2)}$$

*See Appendix for a definition of pH etc.

**In aqueous solutions only about 0.3% of dissolved carbon dioxide is present as carbonic acid (H_2CO_3), the interconversion being slow. In blood the presence of carbonic anhydrase in the red cells ensures that a rapid equilibration occurs between these substances and for this reason dissolved CO_2 in blood may be considered as an effective acid.

where $pK_{eff.}$ is the ionisation constant for aqueous carbon dioxide effective under the particular conditions in the plasma, it is evident that the data for both arterial and venous plasma indicate that $pK_{eff.} = 6.10$ and that the arterial venous pH decrement is 0.03 units. Since the increment of 1.67 m.eq./1. of bicarbonate ion must have been accompanied by an influx of 1.67 m.eq./1. of hydrogen ion it might be expected that in the absence of any other acceptors of hydrogen ion, the two quantities would have yielded 1.67 m.eq./1. of carbon dioxide, this increment of carbon dioxide then increasing the concentration in venous plasma so as to lower the pH to 7.00 units (Table I).

Table I.

Composition and pH of Arterial and Venous Plasma in Contact with Red Cells.

	Arterial plasma obs.	Venous plasma obs.	Venous plasma calc.
HCO_3^-, m.eq./1.	25.14	26.81	25.14
CO_2, m.mole/1.	1.28	1.46	3.13
pH	7.39	7.36	6.10 + 0.90 = 7.0
$\frac{(HCO_3^-)}{(CO_2)}$	19.69	18.36	8.03
$\log_{10} \frac{(HCO_3^-)}{(CO_2)}$	1.29	1.26	0.90
$pK_{eff.}$	7.39 − 1.29 = 6.10	7.36 − 1.26 = 6.10	—

Examination of the data of Table II relating to the bicarbonate ion and dissolved carbon dioxide in the 0.818 1. of red cells in contact with 1 1. of plasma (1.818 1. of whole blood with normal haematocrit) shows that a similar effect is avoided within the red cells. Consequently, taking the two sets of data together (Table II) it is evident that a gross fall in pH is avoided in whole blood in the venous circulation by the masking of some 90% of the hydrogen ion received from the intra-cellular buffer systems. The effect has been known for some time to result from the deoxygenation of haemoglobin.

The structure of haemoglobin is such that each of the four ferrous ions per molecule of this compound interacts with an imidazolyl group (the side chain of the amino-acid histidine). On the attachment of oxygen molecules to the ferrous ions a change occurs in the Fe^{2+} –

Table II.

Composition within the 0.818 l. of Red Cells in Contact with 1 l. of Arterial and Venous Plasma*.

	Arterial red cells obs.	Venous red cells obs.	Venous red cells calc.
HCO_3^-, m.eq.	10.94	11.60	10.94
CO_2, m.mole	0.87	0.99	1.65
$\frac{(HCO_3^-)}{(CO_2)}$	12.65	11.75	6.63
$\log_{10} \frac{(HCO_3^-)}{(CO_2)}$	1.10	1.07	0.82
$pH = 6.10 + \log_{10} \frac{(HCO_3^-)}{(CO_2)}$	7.20	7.17	6.92

*The 0.818 l. of red cells in 1.818 l. of whole blood represents the normal composition of whole blood.

imidazolyl interaction which tends to elide hydrogen ions from the acidic form of this group :

$$Fe^{2+} \ldots ImH^+ + O_2 \rightleftharpoons O_2 \ldots Fe^{2+} \ldots Im + (H^+)$$

Deoxygenation results in the uptake of hydrogen ions and were this process to occur in isolation the pH of the blood would rise since the hydrogen ions required would be removed from solution, but the efflux of oxygen is accompanied by the influx of hydrogen ions from intra-cellular buffer systems together with bicarbonate ions so that the two processes in concert tend not to increase or decrease the number of oxonium ions and the pH remains constant.

The quantitative relationships involved may be understood from the data of Table III. The arterial-venous bicarbonate increment and hence also of hydrogen ion is equal to 2.32 m.eq. per 1.818 l. of blood and additionally hydrogen ions will be available upon the formation of carbamino-compounds from amino-groups in plasma proteins and haemoglobin in the process : $-NH_2 + HCO_3^- - NH.COO^- + H_2O$. This results in an increment of 0.73 m.eq. of (H^+) so that the total increment is 3.05 m.eq. of (H^+), whilst the oxygen decrement is 4.08 moles so that 1 m. mole $O_2 \equiv 0.74$ m.eq. (H^+). This is in agreement with direct experimental estimate of 1 m. mole $O_2 \equiv$ 0.7 m.eq. H_3O^+. The influx of the 2.32 m.eq. of bicarbonate ion together with the 0.31 m.eq. of carbon dioxide result in the ratio of bicarbonate ion to carbon dioxide being substantially constant so that there is little change of pH.

Table III.

Composition of Whole Blood (1.818 l.).

	Arterial blood obs.	Venous blood obs.
HCO_3^-, m.eq.	36.08	38.40
CO_2, m.mole	2.14	2.45
Carbamino Compounds m.eq.	1.80	2.53
O_2, m.mole	16.56	12.48

Maintenance of a Fixed pH

Although the haemoglobin-oxyhaemoglobin involvement with hydrogen ion limits pH change, the system does not set the pH at the fixed value of about 7.4 units. This is the result of the simultaneous presence of buffer bases and buffer acids in the ratios proper to the pH value according to the Henderson-Hasselbalch equation. The buffer bases are HCO_3^-, HPO_4^{2-} and Im* and the buffer acids are CO_2, $H_2PO_4^-$ and ImH^+. So long as the rate of influx of hydrogen ions (accompanying organic and inorganic anions) is equal to the rate of efflux through the kidneys then the ratios of buffer bases to buffer acids will remain constant and hence also the pH since the normal rate of influx of hydrogen ions (ca. 0.05 m.eq./minute) is absorbed by the buffer systems and then excreted without pH change, the buffering capacity (i.e. m.eq. of hydrogen ion or hydroxyl ion causing unit change of pH) being adequately large. This quantity is difficult to evaluate either experimentally or theoretically but an approximation is given in Table IV from which it is evident that the globin of haemoglobin is the most effective buffer system, so that the major fraction of hydrogen ions will be held by this protein and the remainder distributed according to the buffer capacities.

Departures from this steady state of balanced hydrogen ion production and excretion indicate the especial importance of the HCO_3^-: CO_2 buffer system. During prolonged exercise the metabolic production of organic and other acids is much increased. Because of the influx of these acids into the circulatory system the pH should tend to fall because of the conversion of buffer bases to buffer acids with a consequent decrease in the ratio buffer bases : buffer acids. Of all the buffer acids only carbon dioxide can be immediately excreted so that the additional metabolic acid can be accommodated by the process : acids + HCO_3^- ⟶ anions + CO_2. The lowered

*=imidazolyl. The globin of haemoglobin contains 8% of histidine the side chain of which contains the imidazolyl group. Plasma proteins contain a smaller proportion.

bicarbonate concentration is matched by a lowered carbon dioxide concentration resulting from the concomitant hyperventilation so that the ratio $(HCO_3^-) : (CO_2)$ remains close to normal even though the actual concentrations are diminished whilst other buffer systems are unaffected and the pH is retained at the normal value. Where the exercise is sufficiently severe or prolonged a fall in pH will take place because of the limit imposed by the carbon dioxide concentration at the maximum ventilation rate. When this is reached then further amounts of acid reacting with bicarbonate will cause a reduction in the (HCO_3^-): (CO_2) ratio but indefinite fall in the bicarbonate concentration is prevented by the other buffer systems changing the ratio buffer base : buffer acid in concert to bring about a lowered pH. Subsequent renal excretion of a more acid urine, together with the anions of the acids produced metabolically, restores the plasma pH to the normal value.

Table IV.

Buffer Systems in the Blood.

System	Capacity* per 1. of blood	% of total capacity
bicarbonate : carbon dioxide	0.09	15
phosphates	0.02	4
haemoglobin	0.42	66
plasma proteins	0.09	15

* m.eq. of hydrogen ion causing a fall in pH of 0.03 units.

The intimate relationship of pH with rate of carbon dioxide excretion is further indicated by the effect of enforced hyperventilation resulting from oxygen lack. The hyperventilation leads to excessive loss of carbon dioxide whereby the ratio $(HCO_3^-):(CO_2)$ tends to increase and hence also the pH but the action of the other buffer systems will minimise this by conversion of buffer acid to buffer base by the reaction : buffer acid + HCO_3^- = buffer base + CO_2. The bicarbonate ion concentration is thus reduced as before but whereas in exercise the total buffer base is diminished, electrical neutrality with cations being maintained by metabolic-acid anions, hyperventilation leads to the total buffer base being constant, only the pH increasing. For this reason a short period of hyperventilation is followed by the excretion of less acid in the urine which tends to restore the pH to normal.

Clinical Applications

One of the difficulties in describing disturbances of pH regulation is that of terminology. This is particularly so with the terms acidosis and alkalosis and is due to their use in describing disorders of carbon dioxide excretion (respiratory) and those due to lack of equality between acid production and excretion (metabolic).

Acidosis and alkalosis are often used to denote decrease or increase of plasma bicarbonate concentration. This is satisfactory when describing the metabolic disorders for here the fall of pH is accompanied by a fall of plasma bicarbonate concentration and vice-versa. Confusion arises when these terms are applied to disturbances of carbon dioxide excretion, for as shown in the previous section, hyperventilation is accompanied by a fall in plasma bicarbonate concentration (acidosis) but a rise in pH (alkalaemia) although the condition is described often as respiratory alkalosis. For such reasons it is preferable to use the terms metabolic alkalosis, acidosis, etc., as indicative of a syndrome with particular shifts in the value of total buffer base, pH etc.

Although disorders of pH regulation may seriously interfere with the function of the organism and may indeed prove fatal the symptoms produced are often ill-defined and may be overshadowed by other effects of the primary disease. Once, however, the possibility of such a disorder is recognised diagnosis is not difficult.

The commonest measurement is that of standard bicarbonate concentration by equilibration of plasma with CO_2 at 40 mm. Hg. pressure and subsequent acidification and measurement of the evolved CO_2. Provided respiratory function of the patient is normal and the disorder is metabolic this measurement alone is often adequate.

Where there is a respiratory disorder or where the situation is complicated it is necessary to measure additionally the plasma pH or Pco_2. If two variables are known it is possible to find the third from the Henderson-Hasselbalch equation for which nomographs of HCO_3^- concentration pH and Pco_2 are available. It may be useful to know the pH of the urine as this will give some indication of the effectiveness of renal compensation.

Especially where the disorder is metabolic there may be an associated disturbance of water and electrolyte content of the body which aggravates the failure of pH regulation and interferes with renal compensation. Frequently the restoration of water and electrolytes to normal value is sufficient to enable pH regulation to be re-established, provided that renal function is adequate. It is important, therefore, to assess the degree of hydration of such patients, to estimate plasma electrolyte level and to obtain an indication of the efficiency of renal action.

The following investigations may then be required :

Blood : Plasma bicarbonate concentration, pH, Pco_2, urea concentration, $Na^+$and K^+ concentrations and haematocrit.

Urine : pH and total excreted hydrogen ion on a fresh specimen; volume, Na^+, K^+ and urea concentrations on a 24 hours sample.

Disorders of Carbon Dioxide Excretion

(i) Impaired Excretion (Respiratory Acidosis).

In health ventilation is physiologically maintained so that the partial pressure of carbon dioxide in the alveoli is about 40 mm. Hg., the concentration of dissolved carbon dioxide in arterial blood being that which is in equilibrium with this partial pressure.

If there is inadequate alveolar ventilation, the partial pressure of carbon dioxide rises and consequently the amount of dissolved carbon dioxide in arterial blood (hypercapnoea). As this higher value would tend to lower the pH then the various buffer bases are converted to buffer acids whilst some of the excess carbon dioxide appears as bicarbonate ion: $CO_2 + \text{buffer base} \rightarrow \text{buffer acid} + HCO_3^-$, the fall in pH being minimised. The total buffer base concentration remains constant but the amount of bicarbonate ion is increased whilst the haemoglobin, plasma protein and phosphate bases are decreased. Parallel with carbon dioxide retention there is failure to oxygenate haemoglobin and some degree of hypoxia is an almost constant concomitant of hypercapnoea.

Following carbon dioxide retention an excess of hydrogen ions is secreted in the urine both as phosphate carried hydrogen ion (causing a fall in urine pH and an increase of titratable acidity) and as ammonium ion. Although there is a raised plasma bicarbonate the excretion of bicarbonate in the urine is extremely low.

Impaired carbon dioxide excretion occurs :

(1) most commonly in lung disease, viz. chronic bronchitis emphysema and asthma. It may occur acutely in bronchial obstruction with collapse ;

(2) more rarely it is due to depression of the respiratory centre in morphine or barbiturate poisoning, or weakness of the respiratory muscles as in poliomyelitis

Symptoms usually appear when the partial pressure of carbon dioxide rises to 60 mm. Hg., the patient being dyspnoeic and cyanotic with a full pulse and the extremities warm and pulsating due to peripheral vasodilation. Further increase of Pco_2 brings about confusion with twitching and papilloedema and finally coma. Treatment is directed towards increasing alveolar ventilation and relieving hypoxia.

(ii) Excessive Excretion (Respiratory Alkalosis).

This is due to hyperventilation; the effects are precisely the reverse of those observed when carbon dioxide retention occurs. The fall in plasma carbon dioxide concentration tends to elevate the pH with consequent reduction of other buffer bases, the sum being constant. Conservation of hydrogen ions results in the excretion of an alkaline urine (rise in urinary pH and a decrease of titratable acidity). Because of the larger amount of the ion HPO_4^{2-} in the urine, the charge of which must be balanced by two sodium ions, the condition tends to result in sodium loss and if long continued to a definite sodium depletion.

Hyperventilation is the result usually of a psychological upset, rarely it is found in subjects with hypoxia due to an alveolar block not affecting carbon dioxide excretion. Finally it may complicate various forms of cerebral damage and is a constant feature of salicylate poisoning.

Neuromuscular hyperexitability leading to paraesthesia, twitching and frank tetany sometimes are well known features of the alkalaemia of hyperventilation.

Disorders of Hydrogen Ion Excretion

(i) Gain of Acids or Loss of Bicarbonate Ion (Metabolic Acidosis).

When the rate of production of hydrogen ions exceeds the rate of excretion either because of increased ingestion of acid substances, undue metabolic production of acids or impaired excretion by the kidneys the condition of metabolic acidosis develops. A similar condition can result from an excessive loss of bicarbonate ions (balanced electrically by Na^+ and K^+). The overall result is that the pH tends to fall, with a consequent buffering effect in which the buffer bases are converted to buffer acids as explained in an earlier section.

An excessive influx of hydrogen ions into the blood may arise from one of the following causes :

(1) Ingestion of substances releasing hydrogen ions is rare but perhaps the most common is ammonium chloride.

(2) Increased metabolic production of acid is seen in normal individuals on exercise, where lactic acid is released in excess. Increased lactic acid is also found in severely ill patients and our experience suggests it may be present in excess during circulatory and renal disorders following extensive surgery. Production of large amounts of keto-acids are a well-known feature of uncontrolled diabetes mellitus.

(3) In both acute and chronic renal failure the kidneys no longer excrete sufficient acid to balance its production by metabolic processes and an accumulation of hydrogen ions results.

Bicarbonate ion deficiency is due most commonly to loss of intestinal secretions due to diarrhoea or fistulae. The electrolyte content of various intestinal fluids is shown in Table V. It also occurs in renal tubular acidosis when the renal tubules are unable to reabsorb bicarbonate normally.

Table V.

(after Maxwell and Kleeman)

	Na^+	K^+	HCO_3^-	Volume
Bile	m.eq./l. 130–160	m.eq./l. 5–15	m.eq./l. 35–40	ml./day 200–500
Pancreatic Juice	100–150	2–15	60–100	600–900
Ileal Fluid	100–150	5–15	25–30	2000–3000

Symptoms and signs of severe acidaemia are increased respiration, clouding of consciousness and finally hypotension and all are well known. More minor degrees of hydrogen ion excess cause weakness, tiredness and lassitude.

The immediate aims of treatment have the following targets :

(1) Relief if possible of the underlying condition.

(2) Re-establishment of optimum renal function (i.e. to correct dehydration and electrolyte deficiencies).

(3) Restoration of the depleted buffer bases by the infusion of 0.16 molar sodium lactate solution or by the addition of $8\frac{1}{2}\%$ sodium bicarbonate solution (1 m.eq./ml.) to whatever infusion is being used. Correction of base deficiency by this means should not be too rapid particularly if there is an associated calcium deficiency, for as the pH of the plasma rises the concentration of ionised calcium falls and this may precipitate tetany or even convulsions. 100 m.eq. of bicarbonate over six hours is usually satisfactory and further infusion can be controlled by plasma bicarbonate levels.

(ii) Loss of Hydrogen Ions or Gain of Bicarbonate Ions (Metabolic Alkalosis).

Gain of bicarbonate ion is almost always due to excessive ingestion of sodium bicarbonate for alleviation of pain from peptic ulcers. The tendency of the pH to rise mobilises hydrogen ions from the buffer acids with a resulting increase in buffer base and fall in buffer acids.

Loss of hydrogen ions is most frequently due to loss from vomiting or gastric aspiration. The gastric contents with free acid contain :

Total acid	Na^+	K^+	Cl^-	Vol.
2–80	20–120	5–30	50–150	300–3000
m.eq./1.	m.eq./1.	m.eq./.1.	m.eq./1.	ml. daily.

Such loss again tends to cause an alkalaemia with an increase of bicarbonate concentration and a fall in total buffer acid. There is little carbon dioxide retention due to decreased ventilation.

The kidneys excrete an alkaline urine containing a large amount of sodium and bicarbonate. This continues until sodium depletion ensues when the urine may actually become acid.

Usually the healthy kidneys can cope with an excess of bicarbonate but if there is much renal damage, buffer base excess develops. Acid loss from vomiting or gastric aspiration may cause complicated changes for in addition to the loss of hydrogen ions there is also a deficiency of sodium and perhaps potassium. This is due partially to the loss in gastric secretions and partially to the increased urinary excretion of sodium which occurs along with bicarbonate (see above). This means that alkalaemia due to loss of gastric contents is often complicated by hyponatraemia and finally circulatory failure and oliguria may occur. The symptoms are clouding of consciousness and in addition there may be paraesthesia, tetany or even convulsions. Usually it is sufficient to correct electrolyte deficiencies and dehydration when the kidneys will rapidly excrete the excess base.

Appendix

The pH of a solution is a quantitative measure of the degree of acidity of the solution resulting from the presence of the oxonium ion H_3O^+. The standard pH of 4 units exactly (at 15°C.) is defined by a one-twentieth molar solution of potassium hydrogen phthalate (British Standard: B.S. 1647 : 50). pH values of solutions are measured by a pH meter calibrated by the standard.

The hydrogen ion (H^+) is incapable of a separate existence in solution always becoming associated with a base. Thus the hydrogen ions immanent in the molecules of a weak acid HA in aqueous solution may be considered to be distributed between the bases A^- and H_2O in a conjugate relationship with the acids HA and H_3O^+ : $HA + H_2O \rightleftharpoons A^- + H_3O^+$.

In a buffer solution containing quantities of a weak acid HA and a salt, say Na^+A^-, it is usual to refer to A^- as the buffer base and HA as the buffer acid. Where the acid is of the type BH^+ (e.g. NH_4^+) the buffer base is B (e.g. NH_3). For both kinds of buffer base : buffer acid pairs the pH of the solution is determined by the concentrations of the compounds according to the Henderson-Hasselbalch relationship :

$$pH = pK + \log_{10} \frac{\text{conc. of buffer base}}{\text{conc. of buffer acid}}$$

where pK is the ionisation constant of the acid.

PUPILS' PHYSICAL SOCIETY

Friedreich's ataxia, malignant melanoma, rhabdomyo-sarcoma, Fallot's Tetralogy. These were some of the eleven interesting cases presented for diagnosis at a meeting in St. Thomas's Hospital on Tuesday, 10th March, to which members of Guy's Pupils' Physical Society were invited. After spending just over an hour trying to think of the right questions to ask and the correct signs to elucidate, as well as talking to many of the St. Thomas's people, a plentiful supply of Scotch Ale and sandwiches, provided by the Governors of the Hospital, were well received. After refreshments, the cases which had been seen were discussed and diagnoses were confirmed or shattered. Next two case histories were presented. The first, most ably done, was a case of renal failure thought to be secondary to adhesions following multiple operations. For the second case history nothing better than "some form of cardiac myopathy" was advanced for a diagnosis.

The tone of the meeting was raised by the presence of Dr. Kauntze, and Dr. Harman of St. Thomas's, and a most enjoyable evening ended around the remains of the ale. With so much to be gained from meetings of this nature it is a great pity that so few people make the effort to attend those which the Pupils' Physical Society arranges. Not only are the meetings a splendid way of learning and revising Medicine and practicing examination technique, but they are most enjoyable social occasions providing contact with students from other Hospitals. What a shame that less than a dozen people from Guy's were able to enjoy the excellent evening provided by St. Thomas's on Tuesday.

HUGH STURZAKER.

Dental Clinical Day, 1964

In direct contrast to the bright warm spring weather we have come to expect for Clinical Day, March 7th, 1964, dawned cold with snow on the ground. Nevertheless the warmth and good humour of old Guy's men and their guests were as undaunted as ever, but unfortunately only the most hardy were inclined to inspect in detail the progress of the artificially sooted rebuilding—or should we say *restoration*—of Old Guy's House.

There was the usual abundant programme—operations, practical demonstrations, table displays and demonstrations of research activities in the Department. For the first time the new Clinical Research laboratory on the 3rd floor of the Old Pathology Block was open for inspection and much interest was shown both in the equipment and layout of the laboratory and the work in progress.

Closed circuit television is of course not new to the Clinical Day fare, but this year, thanks to extra monitors and three additional cameras all loaned by E.M.I., a more sophisticated programme was possible in which viewers were shown pictures of surgery and laboratory procedures, photomicrographs and radiographs.

Other items of special interest included, in the Children's Department a time and motion study of oral function using the Bell-Howell analysing projector and in the Department of Preventive Dentistry, the Weissenfluh Mouth Irrigation Unit.

The presentation of the demonstrations exceeded all previous standards most of the credit for which must go to Mr. B. A. Jones, and Miss Judith Griffiths of the Dental Photographic Department and the staff of the Department of Medical Illustration.

The preprandial lecture was delivered by Professor R. D. Emslie, in which in his own inimitable style, the audience was treated to a light-hearted account, professional and otherwise, of his recent excursion to Nigeria and the Sudan. Professor Rushton, who was away examining in Egypt, need have no anxieties about the afternoon lecture for Dr. R. A. Cawson deputised most ably where, to an over-packed house, he gave the annual account of the cases referred to the Department of Dental Medicine.

The day terminated with the usual tea in the laboratory, this year supplemented by the concluding stages of a television transmission of an "anterior gingivectomy".

A day such as Clinical Day involves a tremendous amount of preparation and hard work by many people, not least the technical, administration, and maintenance staff of the Department to whom thanks and appreciation must be extended.

M. N. NAYLOR.

The Dinner

When the guest list outweighs the menu, one must blame both the chef of that hotel, and the noble reputation of Guy's Hospital in British dentistry. Indeed, as the gourmet in this "visitor" was saddened, so the Guy's element could not fail to observe how few of the distinguished visitors were truly strangers to the gathering of this dental clan. Our minds at least were regaled with flattery from Sir Wilfred Fish, President of the General Dental Council, the spice of prophecy from Mr. A. H. Burfoot, Clerk to the Governors, and an astonishing admission—if it was that—from Mr. J. N. Peacock, President of the British Dental Association who dared to quote: "The most beautiful things in the world are also the most useless". And lived. If it was a fine occasion it was also a memorable one, as Mr. A. H. R. Rowe, the retiring President of the Dental Society, reminded us. Following the toast, proposed by Dr. W. J. Tulley who worked through dental school with the President, Mr. Rowe remarked on the uniqueness of this, the first Dental Dinner at which two Presidents present had in the past shared a bed. Was this, one thought, another "first" for Guy's dentistry?

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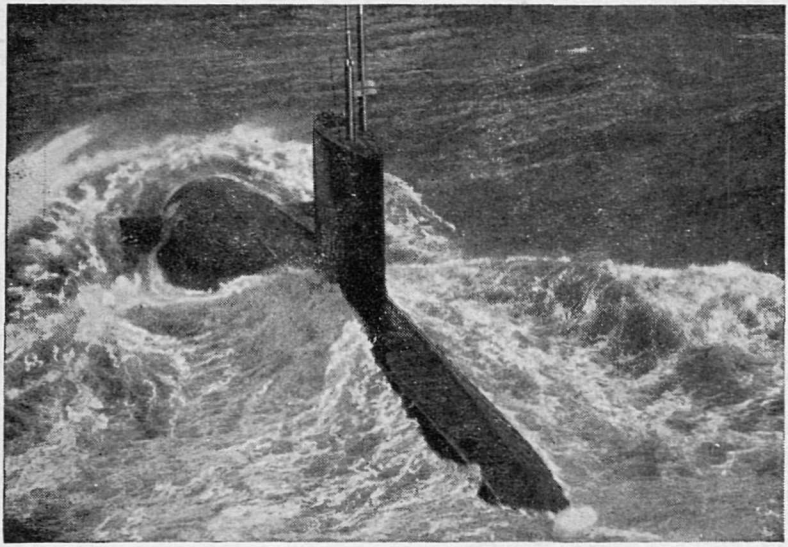

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MO.2D

CRITICISM

By DAVID MASON

Separate Tables

Theatre Club Production—March, 1964

Terence Rattigan's double-bill of middle-class immorality in darkest Bournemouth is an excellent choice for an amateur dramatic society. It provides several opportunities for effective character acting, even in the smallest parts, two interesting plots dramatic enough to keep our emotions engaged, and a series of well-contrived climaxes that overcome a certain *banality in the text.*

The two plays are linked directly by having the same setting and almost all the same characters in each. Two fairly straight-forward plots in realistic surroundings offer little scope for imaginative staging. And with the chief characters more often than not eating and talking in the dining room or just talking in the lounge, the choreography is so to speak limited. In fact, the producer, Malcolm Burke, placed his characters firmly in an authentic, middle-class world, not too shabby and not too prosperous and still recognisable even if some of the social nuances have dated rather more than Mr. Rattigan would himself admit. The stage managers, Jim Brammer and Peter Griffiths, must have had their staff well drilled to move sets, furniture and stage properties for the four changes of scene. In particular, the commissariat work needed to keep the dining room tables supplied was of a high order.

May I first mention a few points of detail that distracted me a little. They may seem small matters but anything that prevents the audience from concentrating on what the actors are saying and doing should be avoided if possible. The dresser in the dining room was inadequately stocked. With only two or three items on its shelves it looked emptier than if it had been quite bare. When one of the characters rushed in out of the rain it looked as if someone had simply rubbed a wet rag on one or two places on his mackintosh to simulate rainfall. I believe a stirrup pump or sprinkler gives best results for this effect and if neither is available it is probably better to dispense with water altogether, and simply indicate the state of the weather by appropriate stage business. Finally, I do not believe that such green, sun-drenched countryside, off-stage through the french windows, was ever seen by human eye, not even in sub-tropical Bournemouth. Make-up in such a small *theatre presents problems, especially when a young cast is playing older* characters. With few exceptions the characters were successfully indicated and it was difficult to know their actual age.

What of the plays and players? The "Table by the Window" of the first play is occupied by John Malcolm, once a promising junior minister in an unidentified Labour Government. Having been to prison for some very unparliamentary conduct, including an attack on his wife, he is drinking his way down the ladder on the proceeds from political journalism. He has a chip on his shoulder as high as Big Ben and tries to shift it by haranguing the other residents. They are headed by Mrs. Railton-Bell, a formidable mother-figure who will stand no nonsense from those damned reds and who is going

to do everything to protect her dividends. Lady Matheson, a mouse-like creature, who can scarcely move without a nod of approval from Mrs. R-B, Mr. Fowler, a retired school-master and Miss Meacham, a horsy woman, also of independent means, are all roughly speaking out of the same social drawer as Mrs. Railton-Bell. There are two representatives of the younger generation, and two proletarians from below stairs, the waitresses who serve the meals. Over all reigns Miss Cooper, a not so formidable mother-figure, who has a past of her own which links her with Malcolm but who is otherwise almost too good to be true.

John Malcolm's former wife Anne (the one he tried to strangle) turns up at the hotel and the drama is under way. They blame each other for the failure of their marriage and after a partial reconciliation John is almost on the point of assaulting her again. He rushes out to spend a sobering night wandering about but after some tactical staff work by Miss Cooper, the two make it up in a compact of mutual self-improvement.

The second play, "Table Number Seven", includes all the characters of the first, plus Sybil, daughter of Mrs. Railton-Bell, and a Major Pollock. The play is really about how these two frightened creatures come to assert themselves; Sybil by daring to stand up to her mother; Pollock by giving up the pretence that he is a former public school boy, Sandhurst cadet and a Major in the Black Watch. Pollock's life of fraud is revealed when the other residents find out that he has been up before the local magistrate for annoying women in a cinema. Once again a man of humble origins is confronted by his "betters" and it is not surprising that he gets most sympathy from the lonely Sybil and the charitable Miss Cooper.

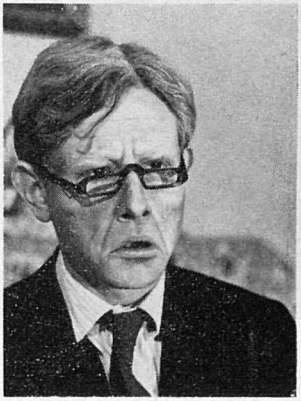
Certainly there were some impressive and moving performances in "Separate Tables". If I mention what seemed to me blemishes as well as good points this is because I look forward to seeing even better performances next time.

The protaganists in both plays were well matched. Mary Cunningham as Mrs. Railton-Bell was a dominating figure with a regal air and firmness of speech that marked her as a strong-willed character as soon as one saw her at table in the opening scene. She was less impressive when she got up and this, I think, was because she overdid the dowager touch when walking about.

John Storrs as Mr. Malcolm and Jacqueline Box as his ex-wife had difficult rôles but played well together throughout their struggle towards a happy ending. The once-potential Prime Minister going to the dogs and the drug addict who admits she would rather lie than tell the truth even about the simplest things are not two of the most attractive characters. John Storrs was particularly convincing through many changes of mood and successfully conveyed his working-class origins without resorting to caricature.

In "Table Number Seven" Patricia Creaven as Sybil Railton-Bell, gave a moving and well-controlled performance. Every gesture conveyed her loneliness and frustration, and when the worm eventually turned, and she said "No" to her mother for the first time in her life she had just the right amount of firmness without quite losing all her nervousness in the first moment of freedom.

As Major Pollock, Richard Robinson looked every inch an officer, if not



P. Dunstan as Mr. Fowler

J. Box and J. Storrs as, Anne and Malcolm

P. Creaven and M. Cunningham as Miss and Mrs. Railton-Bell

Richard Robinson as Major Pollock

quite a gentleman. His parody of the Sandhurst type was perhaps a little too forced at the beginning, but he hinted enough at his underlying fears to prepare us for his exposure. He also very skilfully suggested a certain rapport with Sybil. After he had been found out he faced the consequences with a sensitively played dignity that won over most of the opposition.

Vicki Coburn also did well in the long rôle of Miss Cooper, the hotel proprietress. The part calls for a mixture of resident guardian angel and major domo and provides an important link between the warring residents in both plays.

There was some very enjoyable character playing by Peter Dunstan as the retired schoolmaster, Valerie Beaton as Lady Matheson (this was a nicely observed piece of acting), and Primrose Hubbard as Miss Meacham. Roger Davis and Carol Miller, as the young couple who appeared to have far more sense than most of their elders, successfully overcame some excruciating lines, including an interlude of nauseating baby talk, directed at their newly-born infant.

Altogether this was a most enjoyable evening. This production suggests that the Theatre Club is well provided with youthful talent and enthusiasm, both on and off stage. Their future progress should be worth watching.

Another opinion

Last year on B.B.C. television, there was a fascinating programme about elderly ladies who live in Bournemouth hotels. Every year they have to move out during the summer season to make way for holiday-makers. Finding other accommodation is difficult as the majority of these ladies live on small incomes and take advantage of cheaper off-season rates so that they may enjoy the privacy of hotel life and the companionship of their friends. They are, of course, predominantly middle-class, loyal Conservatives and determinedly independent. On television they presented an unforgettable picture of the loneliness, rejection and quiet hopelessness that too often accompanies old age. They could only be distinguished from the poverty-stricken elderly by their clean, moderately well-fed appearance. Otherwise, despite spirited references to their enjoyment of life in Bournemouth, their faces tended to reveal their real feelings of near despair.

"Separate Tables" is about just such an hotel and its inhabitants. In case there is anyone who has not seen either the original stage version or the film, it should be explained that the play consists of two smaller plays in which the basic characters remain the same with introduction of differing central characters. As might be expected, middle-class people are depicted as being articulate and working-class people as comical or ignorant.

In the first play the author explores the relationship between an alcoholic ex-M.P. unexpectedly confronted with his former wife, a frigid sado-masochistic model. He is middle-aged, a failure and without hope. They are

reconciled and in the process their relationship is expertly dissected as is the effect of his presence on the other people in the hotel. The second play deals with a mother who has stifled the emotional development of her daughter. The daughter has been befriended by a bogus major, also a resident in the hotel and is horrified by the revelation of his aberrant sexuality and public disgrace. She manages, however, to defy her mother and effect a reconciliation with the "Major".

No doubt the play can be viewed in many ways, as a sympathetic portrayal of poignant human situations, an attack on bourgeois conventionalism, or as a blistering comment on English sexual suffocation.

At all events the Guy's Theatre Club chose it for their March production but for some unaccountable reason it emerged as near farce. At first I thought that the ever-prevalent laughter was some form of idiosyncratic audience reaction but I hurriedly dismissed this idea as it presupposes a collective audience I.Q. of subnormal level. After this I decided that the actors were "sending up" the play intentionally or unintentionally. This, I think, was unlikely, although the laughter may have provoked unintentional "sending up". I then realised that the style of production was at fault and for this the Producer, Malcolm Burke, must answer. Undoubtedly the play was successful and enjoyed by the audience, but, I suggest for the wrong reasons. Certainly the play is dated, even absurd at times, but it is not farce.

JAMES WILLIS.

Photographs by the Photographic Society.

REVIEW

HOLLAND AND BREWS' MANUAL OF OBSTETRICS.

by Alan Brews. 12th edition. Churchill. 1963. Pp. 792. *Price* 90s.

Although "manual" seems a somewhat euphemistic title for a book containing almost eight hundred pages, this one is to be highly recommended, not for "handy use", but as a standard textbook of obstetrics. The fact that it has now run to twelve editions is itself proof of this.

Outstanding among its merits is the wealth of excellent illustrations, some even coloured. Illustration of placentography, the application of a vacuum extractor and the blood smear appearance of erythoblastosis are examples of how this book presents modern obstetrics. It is, however, a pity that all the X-rays could not have been printed positively.

In addition to detailed systematic descriptions of normal and abnormal pregnancy and labour, the puerperium and obstetric operations, there is included an excellent chapter on the new-born child. This is a subject of paramount importance which receives the attention it deserves and could well be included in any textbook of paediatrics. There are also five appendices which deal briefly with such practical subjects as maternal diet, exercise, social care and health during pregnancy and lactation, obstetric flying squads and the hazards of irradiation. Everywhere the accent is on the practical application of knowledge; in almost no other branch of medicine is this so urgent.

It is clearly and concisely written and well presented. It omits little. For those who can afford it, it seems an ideal textbook for any student studying for final examinations and valuable even beyond this stage. The primary objective of the book: "to present the Art and Science of obstetrics within a reasonable compass and in an easily readable form", has been well attained.

SARAH MARSHALL.

CORRESPONDENCE

Acute Osteomyelitis

SIR, I would like to congratulate Miss Pike on her excellent little paper in the *Gazette* of the 25th January on osteomyelitis. The importance of early diagnosis and elective treatment is rightly emphasized. It is therefore a sad commentary to read "Her condition did not respond to the penicillin and on the fifth day there was tenderness in the left buttock, so she was seen by the Orthopaedic Surgeon".

Osteomyelitis is surely an orthopaedic emergency and any case doubtful or otherwise should have the immediate benefit of an orthopaedic opinion and be admitted under the department. This is not to advocate early surgery in every case, but at least surgery will be immediately available if it is called for by lack of response to chemotherapy and/or consideration of local bone damage.

The disease is essentially surgical and I suggest that the first duty of the proposed research plan should be to emphasise this point. Then perhaps at Guy's, as in the majority of paediatric units, these cases would be admitted under the orthopaedic department, whom I am sure would be delighted to call in their paediatric colleagues should the need arise.

Yours, etc.,

AUSTIN BROWN.

1, Lloyd Road,
Hove, 4.

Rugby Behaviour

SIR, I would like to associate myself with two such stalwart supporters of Guy's Rugby as Mr. Lewis and Dr. Stafford-Clark. "Good natured ragging" is a somewhat charitable description of some of the displays witnessed at Cup Matches in recent years. There must be many whose enjoyment on these occasions is considerably lessened by seeing one of the most beautiful Rugby grounds in the country turned into a municipal garbage dump before the start of play. One can only hope that supporters will in future behave more worthily of the Club to which they belong or stay away.

Yours, etc.,

R. DAVID PLOWMAN

7, Harcourt House,
19A, Cavendish Square,
London, W.1.

Name-tabs

SIR, As a student who has already gone too far to worry about "risking his future", and has made his voice heard at Dental Society Committee Meetings (and at the recent Clinical Day Dinner!), I feel compelled to correct the false impression created by a sentence in Passim in your edition of the 7th March.

The facts are these. Recently, together with other representatives of the Dental Society, I was invited to discuss with the Sub-Dean any matter connected with the teaching of Dental Surgery at Guy's. Several subjects were brought up and various complaints and respectful suggestions made.

The subject of "name-tabs" was included and our opinions asked. It was concluded that such a scheme would be beneficial in that it would enable patients to identify dressers, and members of the teaching staff to know their Dental Students, the latter being essential for the democratic periodic assessment of progress and ability. We were asked to evaluate the general feeling towards the proposed scheme and the only objections seemed to be that it was a mild form of regimentation, and that some students preferred to remain anonymous! I have certainly found no "widespread objection" nor "strong reaction" with the exception of a minority, and personally approve of the system, since all of the Dental School now wear such identification. Some subtle variations in printing have appeared, and many tabs are worn at unusual angles but all, I am glad to say, in conventional positions.

May I suggest that any Dental Student who has polite and serious suggestions or complaints concerning the Establishment or Teaching at Guy's, makes this known to his Dental Society representative for discussion at the next Committee meeting. This applies as much to pre-clinical students as to others.

As one whose career here is doubtless about to come to an abrupt and untimely end, may I sign myself

Yours, etc.,

MALCOLM BURKE.

Dental Department,
Guy's Hospital, S.E.1.

SIR, It is regrettable that the trite journalese of recent Passims should have provoked me into reply. I admire the stoicism of my fellow-students. This reserve is not necessarily apathy but simply the result of the fact that many dental students do not read the *Gazette*. Last year a letter which asked for the *Gazette* to be made available in the Dental School was ignored.

When name tabs were introduced into the Dental School there were objections from students. These occurred because at first it seemed that only students would wear them while everyone else enjoyed anonymity. Secondly no reason was given for the innovation. It appeared to be merely a whim of the General Dental Council. Ready identification, although a device of prisons and institutions, is generally admitted to be necessary. After two months the reaction is favourable.

Your second point may have more basis for truth. The critical instincts are not always encouraged during clinical years. Yet it is not unreasonable to suppose that "authority" which is by nature conservative, will prefer the orthodox to the heterodox when house-jobs have to be allocated.

Having "risked my future", I remain,

Yours critically,

PETER SIMS.

The Dental School,
Guy's Hospital, S.E.1.

Sir Charles Symonds

SIR, May I through your columns express my very warm thanks to all the Guy's men and women who, together with other friends from the National Hospital, Queen Square, recently presented portraits to myself and the two hospitals, and also gifts to my wife and myself which will be used for the adornment of our new home and garden.

We shall be delighted to see our Guy's friends here at any time. We are four miles from the Bath Road at Hungerford, in the direction of Salisbury, or alternatively there is a train leaving Paddington at 11.15 a.m. which we can meet at Hungerford at 1 p.m.

Yours gratefully,

C. P. SYMONDS.

Field House,
Ham,
Nr. Marlborough, Wilts.
Tel. Inkpen 348.

NOTICE

Guy's Hospital Biennial Dinner Clinical Meeting

The recent announcement in the *Gazette* that a Clinical Meeting, in connection with this year's Biennial Dinner, should be held on Friday, October 2nd, 1964, (the day of the Dinner) and on Saturday October 3rd, 1964, and asking for an early response from those wishing to attend, has met with little response.

Before finally deciding whether it is possible to hold such a meeting we should like to have the names of all those who would like to attend. If you have not already indicated your wish to attend will you please write as soon as possible to Mr. N. L. Eckhoff.

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SPORT

ASSOCIATION FOOTBALL

In the Hospitals' Cup Final at Teddington, against the London, the Football Club emulated the success of the Hockey Club two weeks previously and fairly trounced the opposition to win the Cup 6—1. The St. Mary's ground has provided two happy results for Guy's this year, let us hope that the trend continues in the other major competitions. The last time that this Cup was won by Guy's was in 1949 and this seems remarkable considering the talent that has been available at Guy's for the past few years. This year they were not to be denied, and the side was never in danger of losing the Trophy from the start.

The opening goal came as a result of a somewhat controversial decision awarding a penalty. W. Davies scored from the spot and this gave Guy's the necessary confidence to put them on the road to victory. Even Parry in goal was allowed time to reflect on the previous day's fortunes! Suitable quantities of liquid were drunk after the game from the Trophy, which some players discovered held rather more than appeared possible and the team on leaving later that night might well have been mistaken for eleven Irishmen leaving Cheltenham on the previous Saturday.

In the Semi-final, St. Thomas's were beaten 5—1 in a game which never rose above mediocrity. Pinkham deputised for Parry in goal, who, owing to the date of this game being altered at short notice was unable to withdraw from the Semi-final of the Arthur Dunn Cup at Highgate.

The soccer club has had an excellent season this year, and also reached the Semi-final of the University Cup in which they were beaten 2—0 by Imperial College who fielded six University players. The victory in the Hospitals' Cup augurs well for the future as only Shepherd and Palmer will be leaving the Hospital. Well done P. Davies and the soccer team.

HOCKEY

Another success story in the history of the Hockey Club was made when the 2nd XI won the Junior Inter-Hospitals' Cup. Thus, by beating St. Bart's Hospital 2—1, the Hockey Club have completed the "Double" for the second time.

RUGBY FOOTBALL

The game with the Metropolitan Police is always a hard fought match, usually against a much heavier pack. This year, however, it was rather a sorry spectacle and Guy's failed to take advantage of the numerous opportunities offered to improve the score. The front row played well against their more robust opposites, and in fact appeared quite accustomed to their methods.

Against the London Welsh, Morris was a pillar of strength at full-back and provided some admirable touch-kicking on numerous occasions and also landed the side's only score of a penalty goal. Thomas played well at fly-half making some very useful breaks. However, a superbly fit Welsh pack could not be held at bay and they succeeded in scoring three goals. Kerner, Biggs and MacGregor came extremely close to scoring tries for the Hospital but were stopped when within striking distance of the line.

The team's most recent venture was at Nuneaton, where, in appalling conditions they held their opponents to a pointless draw. In teeming rain, handling proved to be a nightmare, and the ball, as though covered with a thin film of soap, was extremely elusive. The Guy's pack were content to let Nuneaton have much of the possession as they knew that constructive moves were impossible in such a quagmire. Morris went close with several penalty attempts, but the conditions were against any type of kicking in a veritable mud bath. In the second half with the side playing against the wind, Nuneaton attacks were resisted well, both lines remaining intact at no-side.

It is proposed to hold the United Hospitals' Seven-a-side Competition at the London Hospital ground on Thursday, 23rd April, where Guy's hope to enter two sides. The Middlesex Seven-a-side Competition starts on April 18th at Beckenham where Guy's will be entering one side.

There remains only one major game of the current season, against Gloucester at H.O.P. on Saturday.

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RUGBY FOOTBALL

GUYS' v. LONDON WELSH

At Old Deer Park. 7th March, 1964.

Result: Lost 3—15.

In bright sunshine, on a dry pitch, with a strong wind blowing from end to end, Guy's met a customary strong London Welsh fifteen. Although one centre was playing for Wales and another international was injured, the Welsh still managed to field two players credited with national caps—Richards and Michaelson. The Hospital fifteen showed a positional change with Edgar at centre and J. C. Thomas appearing at outside-half

Guy's had the wind at their backs in the first half and when in possession used it to advantage. The native Welsh pack, however, made considerable opposition in the lineout and scrums, and the ball was not always cleanly obtained. Play alternated from one end to the other and one Hospital move looked promising when, following an orthodox three-quarter movement, Biggs got away only to see his short kick ahead beat him to the dead-ball line. Shortly afterwards Morris made a good penalty attempt from outside the '25', the ball hitting the upright and falling out. Towards the end of the half, a fast outside break at fly-half by Richards cut through the defence and the supporting Welsh back-row completed the movement. The try was converted and the Hospital changed over 5—0 down.

In the second half the Welsh made constant use of the wind to take play into the Hospitals '25'. Dogged defence by the Hospital, aided by fine relieving kicks by Morris repelled many of the Welsh attacks. After sustained Welsh pressure, the Hospital's defence wilted temporarily and the opposing back-row picked up a loose ball to go through and score. The try was converted. The Hospital's spirits did not slacken at this set-back and any mistakes by the Welsh were quickly turned to advantage. Whilst on the attack, Guy's were awarded a penalty, which Morris turned into points with a fine kick into the wind. The Hospital continued to play at a good pace and the Welsh seemed at times frustrated by the keenness of the tackling. An unfortunate pause in the proceedings allowed the Welsh forwards to break through the line-out, to bundle themselves over for a third try, and the conversion followed.

The Hospital, to their credit, continued to turn their hard-won possession into attacks at every opportunity. Thomas was having a fine game at fly-half and his elusive breaks had been an outstanding feature of Guy's play. Kerner, also playing well, was held up short of the line after handing off several opponents. There was no further score. In this last encounter with London Welsh (for whom several ex-Hospital players have appeared) Guy's gave a clean and hard showing, but now unfortunately give away to profit interests, and those of the Principality.

Team: A. Morris, D. A. Biggs, J. A. Edgar, C. J. Wright, R. Kerner; J. C. Thomas, H. W. MacGregor, J. E. Davies, F. Price, R. Stansfield; A. J. Kingdon, P. K. Peace; H. Sharp, D. Hendricks, I. A. Baker (Capt.).

GUY'S v. METROPOLITAN POLICE

At Imber Court. 29th February, 1964.

Result: Lost 3—14.

For this match, Brown was replaced by Sharp at wing-forward and J. C. Thomas selected to play at fly-half, with Edgar moved to the centre. However, with mud making even the short walk to the ground a miserable experience, Edgar retained his normal position and Thomas reverted to the centre.

Playing the Police is always an education. This year's side, with its massive forwards and fleet-of-foot outsides, were as conversant with the laws as ever, and had only lost two games to date. Thus it was to be expected that early pressure would result and a dropped-goal soon materialised from the fly-half. Shortly afterwards a loose ball in mid-field was booted on by Thomas who, cleverly wrong-footing the full-back with a pass that would have done justice to Swansea Town, put Allen in for an opportunist try. This, Morris failed to convert, as he had done with a previous longer penalty award. With Guy's nearly holding their own, half-time arrived with only one more try being conceded, splendidly converted from the touch-line.

With the wind now in Guy's favour, much was to be expected, but the second-half was one long embarrassment for the two Guy's supporters on the touch-line. The Hospital attacked continuously and although the touch-finding, particularly by Morris, was impressive, some of the place kicking was abysmal, after four, or was it five, penalty attempts Morris was replaced by Edgar, who also failed. Edgar, not trusting his centre's hands passed out only once, for Biggs to be tackled inches short of the line by the opposite wing. For the rest, kick after abortive kick landed plop into the Police hands with the regularity of parking fines. The Hospital forwards fought with fire and what was the outcome?—Just two brief entries by the Police into the Guy's half in the final period produced two unconverted tries.

Add up the penalties (twenty one to Guy's just one to the Police) and add up the overall pressure (virtually all the second-half in attack by Guy's). Make no mistake, this was a match Guy's could have won—this really was daylight robbery by the Police.

Team: R. Morris; D. Biggs, A. Allen, J. C. Thomas, R. Kerner; J. Edgar, H. MacGregor; J. Davies, E. Price, R. Stansfield, P. Peace, A. Kingdon, H. Sharp, D. Hendricks, I. Baker.

E. TILLER.

ATHLETIC CLUB

Regular training sessions have been held in the physio's gym since well before Christmas. Attendance so far has been fair and it is hoped that now the start of the season is imminent more people will find time to come along. The sessions start at 5.30 p.m. on Monday, Wednesday and Friday evenings and consist mainly of circuit and weight training.

Several members of the Club will be competing in the annual Easter Meeting held by Jersey A.C. It is planned to spend five days in Jersey over Easter and to put in a certain amount of training in addition to the match. There are still three places vacant for the trip and anyone wishing to go should contact the Secretary immediately.

The first match of the season will be the University Championships, on May 1st and 2nd.

The officers of the club for the coming season are:-

Captain: A. Winskill.

Hon. Sec: D. Tong.

Sports Day Secretary and Treasurer:

R. Thacker.

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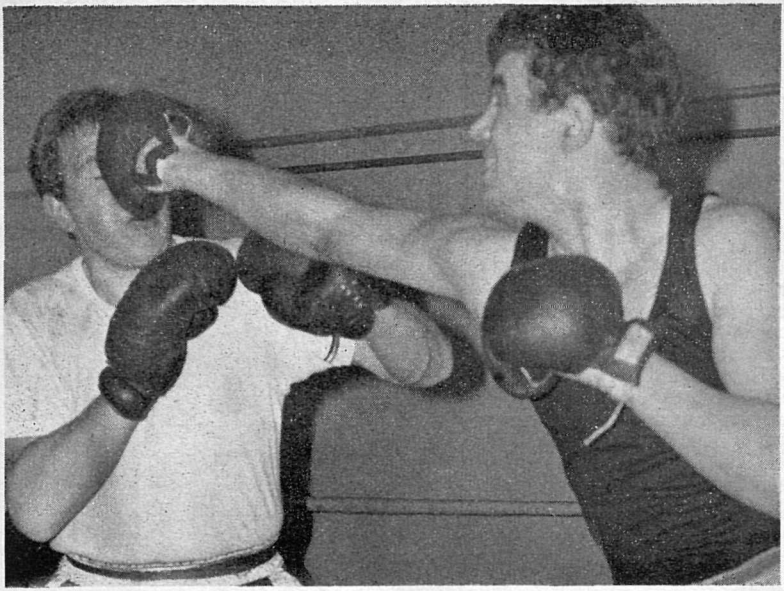

Stansfield on his way to a points victory

BOXING

Pavy Gym. 28th February, 1964.

The boxing club provided a small audience with a thoroughly entertaining evening in the Pavy Gym. The Club fought a combined team from Imperial College and Lynn Amateur Boxing Club.

The first three contests, all against Imperial boxers, were lost. Hartley fighting an opponent a stone heavier was forced to retreat, a new style for the normally aggressive Hartley.

Roland Knight, making his first appearance, was handicapped by lack of experience and fitness. The bout turned into a comedy performance, Knight leaning on the ropes to regain his breath, or bending with gloves on knees.

D. Edgar drew first blood, and kept up the flow with a stream of heavy punches. His opponent scored heavily with fast counter-punches, not delivered with the same force, but collecting a few more points.

Stansfield, having his second contest for Guy's, boxed extremely well, scoring with left leads, followed by solid rights. He showed great improvement from his first bout, when he won the U.H. Championship last year!

The next contest was between Hughes and Davies, both from Guy's. Davies making his debut gave Hughes a nasty time, leaving him with a badly bruised eye and running nose. Perhaps Vice-Captain Hughes will encourage Davies to box again.

Gibson gave the best performance of the evening outclassing a competent Lynn boxer.

N. Head, again, with nose pouring with blood, set about a Imperial College boxer and won comfortably.

Derent boxed extremely well for the first two rounds, keeping his Lynn opponent at long distance. In the final round he lost his lead, and also a close point's decision.

The team event was drawn, with good performances on both sides, capped by an exhibition bout by two "useful boys from the Lynn".

R. BROWN.

BOAT CLUB

University Trials Head and Bedford Head of the River Race

At the beginning of the year, with three complete novices in the first eight, the prospects of the Boat Club seemed not very bright. However, the excellent and enthusiastic coaching of D. Gurney and a large amount of fanatical keenness amongst the members have resulted in the appearance of an unpolished but great-hearted crew with already a turn of speed which impresses and an enormous potential for improvement.

During the last few training weeks, the crew concentrated on the full 4¼ mile Head course, and watched their time for the course steadily dropping.

In the University Trials Head, Guy's produced their best time of the year, the cox, C. A. C. Pickering, steering a faultless course in a freezing wind.

Starting at Putney before the King's College, and behind the Queen Mary's College first boats, Guy's went off at thirty-two like Heaven's angels. By two minutes the bows were hissing at the rudders of the boat in front, but wisely the Guy's stroke, T. D. N. Peet, steadied out to a rating two pips lower, and Q. M. C. were allowed to get away. Attention settled on King's behind, who were slowly creeping nearer. By Hammersmith there was only a length of clear water between the boats, but as Guy's rounded the corner out of the wind, they locked on, and took a length back. At Barnes King's, again within striking distance, began a spurt and looked all set to row right through us. However, a delicate piece of Guy's steering and a God-sent crab amongst the enemy, foiled the attempt. Guy's held off all further frenzied spurts from King's without difficulty.

Guy's came eleventh out of over thirty crews, in 20 min. 38 secs., a very fast time. St. Mary's were the only hospital to beat Guy's

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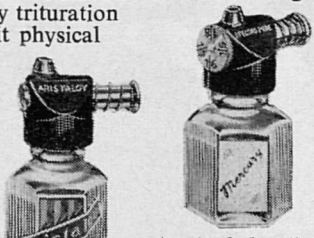

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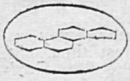

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(by 7 secs.). University College were twelve seconds faster.

The Bedford Head is rowed over a shorter course, lasting about nine minutes. Guy's started in front of Pembroke College, the fastest crew on the Cam this year. In spite of illness, stroke kept the rate at 33 for the first two minutes, the cox shooting the narrow bridges with confident ease. Guy's rounded a corner and hit the icy North Wind. They dropped the rating and held their finishes out. At five minutes, Pembroke were starting to make an impression. At six, both crews shot different arches of the Town Bridge and appeared with their bows level. Amidst tumultuous shouts from the crowds around the boat houses, Guy's held Pembroke level for a full minute before the faster crew drew slowly away. Guy's finished twentieth out of fifty-six crews. Pembroke finished second. Guy's beat U.C. by one second and were the fastest London crew in the race. This was a splendid effort for such an inexperienced crew, and augurs very well for the season.

RIFLE CLUB

A team went to the London Hospital to join in a shoulder-to-shoulder match on 19th February.

This is the first match, shoulder-to-shoulder, that the club has fired for several years. Guy's did well to beat the London by 4 points.

	Deliberate	Rapid	Total
D. Wardle ..	96	97	193
P. L. Jordan ..	92	90	182
R. Ringrose ..	93	87	180
R. Jenkins ..	93	85	178
(pp. R. Illing) ..	99	82	181
			914

The 5th score was made up by Ringrose and Jenkins firing again.

LONDON 910

In the Novices league, run by the University of London Rifle Club, a new venture for Guy's, the Hospital has achieved 3rd place out of 6. This team is composed entirely of freshers and they have done very well to attain this place. In addition, R. Illing obtained the highest average in the whole league, 93.16, and P. Cosgrove 3rd highest, 91.0

Final League analysis:

Shot 10, won 6, lost 4, aggregate 4852, place 3rd.
Highest possible aggregate 6000.

LADIES SQUASH

6th February, 1964. Away

Guy's v. University College

C. Stannard, lost 0—3.
C. Wotherspoon, lost 0—3.
Pe. Heather, lost 1—3.
W. Higlett, won 3—0.
Guy's lost 1—3.

11th February, 1964. Away

Guy's v. Royal Free

A. Moore, lost 0—2.
C. Stannard, won 2—0.
Pr. Heather, won 2—0.
Pe. Heather, won 2—1.
Guy's won 3—1.

2nd March, 1964 Away

Guy's v. St. Thomas's

A. Moore, won 2—1.
C. Stannard, lost 0—2.
C. Wotherspoon, won 2—0.
Pe. Heather, won 2—1.
Guy's won 3—1.

5th March, 1964. Home

Guy's v. King's College Hospital

A. Moore, won 3—1.
C. Stannard, lost 0—3.
C. Wotherspoon, won 3—0.
Pe. Heather, won 3—0.
W. Higlett, won 3—0.
Guy's won 4—1.

All Secretaries must ensure that reports reach the Gazette Office by 9 a.m. on the Monday before the Gazette is issued. If this is not done the Sports Editor cannot be responsible for material not appearing in the Gazette of the Club concerned. This week reports of the Soccer and Hockey Clubs have not appeared for this very reason.

HOSPITAL INFORMATION

HOSPITAL INFORMATION

Applications are invited from medical graduates (men or women) for the post of **Lecturer or Junior Lecturer** in the **Physiology Department,** commencing as soon as possible. Initial salary within the range of £1,200 to £1,400 (Junior Lecturer), or £1,550 to £2,150 (Lecturer) plus £60 London Allowance, according to qualifications and experience, with superannuation, and family allowance where applicable. Application forms can be obtained from and should be lodged with the Dean.

GUY'S HOSPITAL, S.E.1.

Applications are invited for a locum **Senior Registrar in Physical Medicine** with duties to commence as soon as possible, and appointment until 30th September, 1964. Application forms are obtainable from and should be lodged with the Superintendent, Guy's Hospital, S.E.1, not later than **31st March, 1964.**

GUY'S HOSPITAL, S.E.1.

Applications are invited for the post of **Middle Grade Registrar** in the **Department of Clinical Pathology** with duties to commence as soon as possible, and appointment until 30th September, 1964. Application forms are obtainable from and should be lodged with the Superintendent, Guy's Hospital, S.E.1 not later than **31st March, 1964.**

NURSING NEWS

Entered

Staff Nurse B. Edwards to Esther
Staff Nurse P. Fone to Luke.
Staff Nurse D. G. Lees to Theatres.
Staff Nurse K. Pink to York Clinic.

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GUY'S HOSPITAL GAZETTE

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4th April 1964

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Editors *T. C. Davis*
B. H. Hicks

Sports Correspondent *E. Tiller*

Guy's Hospital, London

PASSIM

Control of Drugs

Despite the present anxiety concerning the quality and side-effects of modern drugs, few would have foreseen that a sensitivity to cheese might ever form a serious source of danger, or that the days of tyramine-free cheese are drawing nearer. For the patient on a course of monoamine-oxidase inhibitors cheese may in fact be the cause of an acute hypertensive crisis, even leading to cerebral vascular accident (Ref. *Lancet,* 1964). Before the Minister of Health orders the abolition of cheese, one might draw a simple moral from the story. It illustrates both the difficulty of predicting dangerous side-effects, and the value of good clinical observation, a moral given weight last year by the thalidomide tragedy.

It would seem that the majority of pharmaceutical companies are conscientious in their "pre-clinical" research, and action by government departments is unlikely to overcome this element of risk when any new product is given to a patient. More progress might result from some research into the prediction of effects in man from tests on lower animals, perhaps with more use of lower primates for final trials of a new drug. A government body might usefully check the procedure of the less conscientious drug companies, but the dangerous tendency to regard Ministries as social panaceas would be somewhat curbed by emphasis on a more constructive research programme.

A field in which governmental action is, on the the other hand, urgently required is that of quality control of pharmaceutical products. A recent report from Birmingham revealed some alarming facts about exploding ampoules and variations in the strength of solutions for injection, produced in standard containers. Such dosages have to be taken on trust by the practitioner, and if the producers are not justifying that trust then some official action should be instituted. Again, the problem is largely the fault of a minority of producing companies, but this is hardly consolation to practitioner or patient.

In earlier days of Medicine physicians were less worried by side-effects of their treatment, unless one includes bite-marks from the leeches, but Mr. Moore has written for the *Gazette* a short series of articles on some of *their* medications still in current use. " Pharmaclassica " opens on page 176.

Over the Hills . . . .

"What is this life,
If full of care,
We have no time
To stand and stare?"

It is restful to loll quietly and just "stand and stare", for we do it rarely enough. W. H. Davies knew the virtues of stillness. To stand and listen to the stillness answering the quietness and each

ever going around and around we begin to feel indeed "that both *are* fixed in an eternal action, whereby the wheel must turn". Poets and writers, particularly the Romantics of the 18th century, found both a great stimulus and a calm in the presence of Nature; a Nature that was at once close and immediate. It is difficult for us to feel it; us town dwellers, us mechanized and scientific to feel any of this detachment from the rough hurly-burly of our crowded lives. But there are times and there are places still where Nature remains on our side, and it is easy to sit back, perhaps with enigmatic smile, and to be the jealous onlooker if not a participant.

It is no idle man that recognises the strength of a beautiful scene. And because it is a beautiful scene it is quiet and probably very personal. It may be trite but possibly we would admit it to be true that to stand and stare away from our urgent, factious life and watch something over which we have no power or jurisdiction is humbly satisfying. It takes us up out of ourselves and at the same moment brings us down to face the fact that we, and the person next to us, are just human beings. Myriads of scenes and ideas easily come flocking when we contemplate a time away from it all. It doesn't mean a deserted waters' edge or a white sunned beach but as much an attitude of mind. An attitude in which one will find it as easy to receive as to give and a time when one can, well; just experience.

We would like to congratulate Sister T. Wright, who is at present the Assistant Matron in York Clinic, on her appointment as Assistant Matron in charge of the Psychiatric Unit of Edinburgh Royal Infirmary.

GUY'S DIARY

APRIL

EXHIBITION.			*The Hip.*
7th	T.	1.00	Dr. MANN. Clinical Lecture. *Bronchial Asthma.*
9th	Th.	1.00	Mr. BEARD. Clinical Lecture. *Acute Cholecystitis.*
11th	S.	10a.m.	Departmental Round conducted by Mr. H. DODD. Clinical Theatre.
13th	M.	1.00	Dr. BAKER. Clinical Lecture.
14th	T.	1.00	Mr. BLACKBURN. Clinical Lecture *Obstructive Jaundice.*
16th	Th.	1.00	Dr. DOW. Clinical Lecture.
16th	Th.	5.00	Neurosurgical Round conducted by Mr. P. SCHURR. Clinical Theatre.
17th	F.	1.00	Dr. MACLEAN. Clinical Lecture. *The Barbiturates.*
21st	T.	1.00	Professor ATKINS. Clinical Lecture.
23rd	Th.	1.00	Professor HUNT. Clinical Lecture.
24th	F.	1.00	Dr. KAUNTZE. Clinical Lecture. *Cardiac Failure.*
25th	S.	10a.m.	Clinico-Pathological Meeting. Clinical Theatre.

RENAL STONES

Two patients with renal stones were presented at the Combined Round on Friday, 21st February, 1964. A recording was made of the presentations and the ensuing discussion, and from the recording the following abbreviated version of the proceedings has been prepared.

Mr. Kinder : The two stone cases which we are to see to-day both bring up very important points, both in the diagnosis and the treatment of stones. *Case I*—Joan G, who has very kindly come up from Beckenham, appeared in 1961 at Dr. Joiner's clinic with a fortnight's history of feeling rotten, and having intermittent oliguria with vomiting. In 1958 her left kidney had been removed at Charing Cross for a staghorn calculus and a pyo-nephrosis. When Dr. Joiner and I saw her that morning she had a tender swelling in the right loin, and it seemed likely that she had a stone in this right kidney as well. We took a straight X-Ray.

X-Ray shown to the Round—large stones seen indistinctly in line of right ureter.

Her blood urea was 290 mg% and her potassium 7.1 mEq/l. She came in that evening and a ureteric catheter was passed up the right ureter. The catheter stuck at 7 cm. and then a gush of urine came down alongside the catheter; this made me feel that it was quite definitely these vague opacities causing the anuria and that I had managed to shift the stones a little. During the night she had a mild diuresis and the next day she felt very much better. In view of this it seemed reasonable to approach the stone itself rather than make a "safety valve" in the kidney—a nephrostomy—and I took the two stones out through an incision down the groin. From that time on she has had no more trouble. The blood urea and potassium both came down.

When she came in she had a B.coli infection in the urine, but originally in Charing Cross Hospital she had a Proteus infection. This is important for since she had stones at that time on both kidneys the aetiology was presumably the same for both sides.

It seemed important to try to prevent any further stone formation in her remaining kidney, and for that reason she was put on a regime which I will discuss more fully later on. Briefly, the regime consisted of maintaining a low dietary intake of phosphates, producing a large urine volume by the drinking of 8 pints/day, and treating any infection energetically. Stones occurring as a result of Proteus infection are always triple phosphate stones, made out of calcium, ammonium and magnesium phosphates; and by cutting down the urinary excretion of phosphates you can minimize the risk of getting further stones.

Dr. Trounce to patient : Is it any hardship drinking 8 pints a day?

Joan G.: Well it is really, because it isn't just drinking. You have to spend a lot of pennies.

Summary of Case II, which was presented by Patrick Rowe.

In April, 1958, Graham B, then 22, noticed blood in his urine one morning having been sat-on during a rough game the previous day. An I.V.P. was performed and this showed a left hydronephrosis. In August of that year a Hynes-Anderson pyeloplasty was performed in Guy's, i.e. the left ureter was reconstructed to relieve the hydronephrosis. In August 1962 he was found to have macroscopic haematuria at a Life Insurance medical. An X-ray at this time showed an opacity in the lower pole of the left kidney. He presented again in 1963 with left loin pain; he was investigated and the following results were obtained : serum proteins 7.0G/100ml; serum calcium and corrected serum calcium 9.2mg/100ml; in the urine there were neither casts nor cells but there was a urinary bacterial count of 500 Proteus and 500 B.coli.

Mr. Kinder : You will have heard one absolutely typical thing in this story, that the hydronephrosis originally made itself known not because of the pain but because of haematuria after the patient got a bang. Looking at the film taken in 1958 before the operation, you will see very nicely the big globular left pelvis, and the marked difference in bore between the pelvis and the ureter on that side. If you compare it with the other side you will see that on the other side there is gradation through pelvis to ureter so that you can't tell where one ends and the other begins.

Quite a helpful thing to remember when you are thinking about the aetiology of stones is that the majority of stones occur in sterile urine and arise in the kidney—these are called "primary stones". Less commonly, stones arise as a result of infection; these stones arise either in kidney *or* bladder and are called "secondary stones". I am going to talk specifically about these *secondary* stones. The infecting organism (Proteus is the common offender) splits up urea and as a result triple phosphate crystals form in the urine. But these crystals will only coalesce to form a stone if the conditions are right. You've got to have some glue or matrix or something to bind these crystals together; and then there must be some anchor or backwater where the stone can form. Now the things which produce the necessary stasis are things you can probably work out for yourselves : a hydronephrosis for example, and here you've got one, a patient with a pelvi-ureteric obstruction who has developed a stone. You may say, "Why has he developed it *after* his operation and not before?" Well, in spite of his operation you can see from the films that he still has big calyces and there must be a certain amount of stasis there. If at the time of operation he had an infection or a blood-clot forming a matrix, it is quite likely the stone arose then. As for stasis, you can get this from a big ureter dilated in its own right, or from the prostatic or bladder-neck obstruction that is very frequently associated with infection.

I will now say a little bit more about this regime for dealing with patients with triple phosphate stones. You put them on a low phosphate diet, and you give them Aluminium Hydroxide: this forms

an insoluble precipitate in the stomach, so very little phosphate is absorbed. (Aludrox is used, and in liquid rather than tablet form). You put them on the highest fluid intake they can take, and you also put them on antibiotics. This regime is only of any use with *triple phosphate* stones.

I think I might just say a little bit about long-term chemotherapy. I don't think there's any point in leaving a patient on Furadantin for a matter of months. The blood concentration is very low, and patients can still get an infection while they are actually on a reasonable dose of Furadantin. I think it is much wiser to treat an infection as it comes along, treat it energetically with a course of broad-spectrum antibiotic, or give them a therapeutic course of chemotherapy at set intervals every month or so depending upon the amount of infection the patient has.

Dr. Trounce : This course—do you give them one week every month, even if they are symptom free?

Mr. Kinder : A week or 10 days' course every month. It rather depends, I think, on how much infection is involved.

Dr. Trounce : How useful do you think sensitivity tests are?

Mr. Kinder : Not very. You nearly always think that Furadantin is going to be highly successful from the report, but in fact it very rarely is.

Dr. Nurick : Which antibiotic do you use?

Mr. Kinder : With Proteus I think the two antibiotics of most use are Ampicillin given by mouth, and Kanamycin given by injection, but there I want to be careful because some patients are sensitive to Kanamycin in the same way as they are to streptomycin, and you may get VIIIth nerve effects.

A Student : Is there any sex difference in the incidence of these stones?

Mr. Kinder : Yes, a good point. Stones in general are commoner in men. But these particular stones are commoner in women, the reason being that pyelonephritis is commoner in women.

Dr. Trounce : As a codicil to Mr. Kinder's talk about stones I just thought I'd say something about the metabolic aspects. It's important to remember that a number of stones are secondary to metabolic diseases; the metabolic diseases may be treatable and the possibility of recurrence of the stones thus removeable.

Perhaps the commonest generalized metabolic disease in which you get renal stones are those associated with an elevation of plasma calcium. And the commonest of these is hyper-parathyroidism. I don't want to bore you with the whole question of diagnosing hyper-parathyroidism but I think that with any patient who has recurrent stones the least you can do is to estimate the plasma calcium accurately once or twice.

Another interesting group of people are those who show a hypercal*curia* but no hypercal*caemia*. This group is not altogether a well-

defined one. The condition is given the name "idiopathic hypercalcuria" and it does seem to be the cause of recurrent stones in a number of cases. And so you get stone formers who do not excrete vast amounts of calcium, and on the other hand people who excrete more than the normal amount but don't form stones. We don't know the cause of this hypercalcuria: we don't even know whether it's a primary renal disorder or whether it may be a primary disorder of absorption. The type of stone you get is very frequently a calcium oxalate stone; it doesn't seem very likely that oxalate plays a very important part in the stone formation, for while the calcium excretion may be raised, the oxalate excretion is usually within normal limits.

Dr. Cameron : There is a small but very important point that arises out of the first case we saw. When you have a patient with acute uraemia and are considering them for conservative treatment or treatment on the artificial kidney, you must remember that if their uraemia is complete, that is to say if they are passing no urine at all, the cause for their acute uraemia is much more likely to be post renal than renal. Absolute suppression of urine is very rare in acute uraemia of *renal* origin. With a patient of this sort you should get on the phone to the surgeons and get their opinion. The condition is treatable and every hour you wait, that kidney is being damaged more by the back pressure.

We would like to thank Mr. Kinder and Mr. Kilpatrick for permission to publish the case histories, and the speakers for allowing us to record the round. The recording was prepared for publication by Bruce Ricketts.

NOTICES

The 50 Club

The Annual Dinner of The Fifty Club will be held on Thursday, May 14th, 1964, at The Anchor, Bankside. Details will be posted to members later.

P. F. P. LANSDOWN,
Hon. Secretary.

205, Sanderstead Road,
Sanderstead, Surrey.

Residents' Ball

Cancelling all previous announcements, I should like to say, through the courtesy of your columns, that this year's Residents' Ball will take place at the Hilton Hotel, Park Lane, on Thursday, 14th May, 1964. This is the Thursday immediately preceding the Whit-week-end.

Anybody working at the hospital, as staff or student, will be welcome; they are particularly encouraged to bring a party. Further details will be announced soon when tickets will also become available.

Yours, etc.,

E. H. HARLEY,
President of the Residents.

Guy's Hospital,
London, S.E.1.

Calcutta to London—by Car

by Michael Mitchiner

In September, 1963, having been very fortunate in spending the summer on a Nuffield Foundation Scholarship in Hong Kong, I was able to return to England by land, under the auspices of the Nuffield Foundation and of Dr. Boland.

After spending a few days in Bangkok I flew to Calcutta, arriving on September 24th. My Ford Popular, which should have arrived before me, was still somewhere in the Bay of Bengal, and eventually arrived on October 9th. Much to everyone's surprise, formalities were completed and it was freed within four hours of the ship berthing.

India

Calcutta, a large merchant town of some five million people, is a town of contrasts—large colonial houses in tree-lined avenues for the rich, and crowded tenements and pavement squatter huts for the poor. Many men come from the villages to find work as coolies and sleep on the pavements. Everywhere one sees the sacred cows wandering loose, some people collect their dung to dry by the roadside and later use for fuel. There is quite a contrast between the ever-busy Chinese and the Indians, so many of whom can be seen just sitting around.

I spent two very enjoyable weeks there with Dr. Maurice Shellim, an old Guy's man.

Leaving Calcutta, I took the trunk road up the wide, flat valley of the Ganges and its tributaries towards Delhi. It was an interesting journey through intensively farmed, fertile country, whose main crop changed from rice in Bengal to wheat and maize, west of Benares. Scattered among the fields are the small villages. In the wetter area of Bengal village huts are often made of wood, straw and palm leaves; but further west mud huts predominate. At dawn a procession of men, women and children wend their way from the villages to the fields, carrying their day's food. They are a simple and hospitable people.

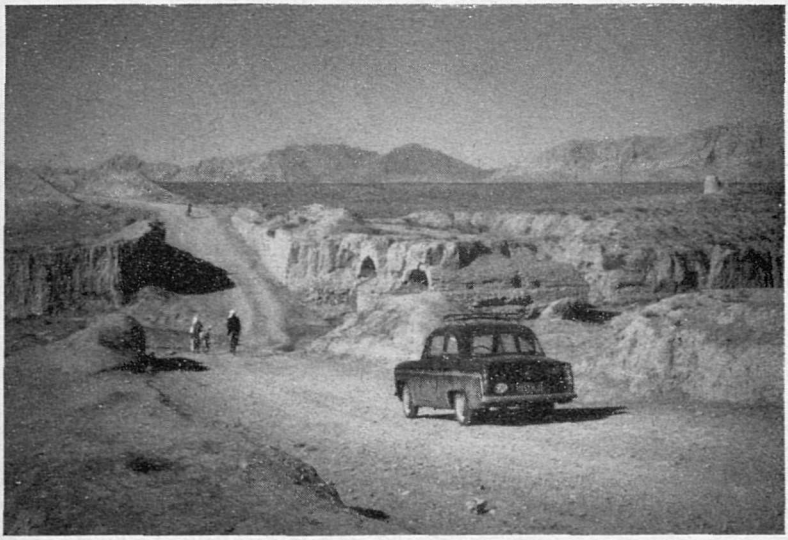
Benares is the chief Hindu Pilgrimage centre, where pilgrims throng to the river to bathe and afterwards receive absolution from the priests, give alms and visit the many temples in the town. Alms-giving supports a large number of beggars, many of whom have leprosy. I was shown around by an Irish expatriate called Kelly, and nearly took an involuntary bathe in the Ganges while taking a photograph. As a Hindu medical student explained to me—Hinduism is subject to individual interpretation, but most people accept a supreme Being, of whom the gods of the Hindu pantheon are the incarnations.

In Agra I stayed in the Youth Hostel run by Anne, the wife of a teacher, who is also an S.R.N. from Bart's. Leaving them early, I arrived at dawn at the Taj Mahal. In white marble, with domes and minarets, it has the river Yamuna behind, and geometrically arranged

gardens in front. It is one of the most beautiful buildings I have seen. The Moghul Emperors of India (1555-1858) varied between Agra and Delhi as capital. So both towns contain their elaborate tombs (e.g., Hamayun d. 1556; Akbar d. 1605), most of them reminiscent of the Taj Mahal (tomb of Moumtaz Mahal d. 1631). Both towns also have large red sandstone forts, inside which are marble lined reception rooms and luxurious gardens with lakes and fountains.

Reaching Delhi, I met Steve, an American who had been climbing in the Himalayas. Turned away from the Y.M.C.A., we slept with down-and-outs in the hall of a Sikh temple. Next day, after visiting some embassies, we returned and found space in the Y.M.C.A.

From Delhi to Pathankot the road passes through similar agricultural country, but soon after passing the inspection post into Kashmir, the Jammu road skirts the foothills of the Himalayas. In this less fertile region the road crosses a number of now dry water courses.



Leaving the mission at Jammu next day, I drove up into the Himalayas following a river valley, then leaving it to cross the 6,000 foot pass which leads down to the valley of the river Chenab—a tributary of the Jhelum. It is a long, narrow valley with terraced agriculture, pasturage and much forestry on the hills. From this valley a tunnel at 7,200 feet leads down into the Vale of Kashmir, which is a flat valley about 65 miles long, through which wends the river Jhelum. Situated at 5,200 feet, with a temperate climate, it contrasts with the Indian plains. Pretty in autumn, it is also cool, and many people wear blankets over their thin clothes.

Father MacMahon was expecting me at the Srinagar mission, where I spent two enjoyable days. An attractive town with many two-

storey wooden houses, Srinagar has the river winding through it against a background of barren mountains rising to 15,000 feet in the clear blue sky. Leaving Srinagar, I returned by the same road to Pathankot, this being the only road now open, because of the border dispute with Pakistan. Kashmir's border disputes with Pakistan and China are responsible for certain restricted areas and much military activity.

South-west of Pathankot I camped next to a small mud village, and next morning the villagers gathered round and brought me water and some hot, sweet tea—their normal breakfast. Wherever I went the local people were very friendly. In Amritsar I gave a lift to a customs official and so border formalities were quite rapid.

Pakistan

I found the way of life in Pakistan very different from that in India, mainly because of its position as an eastern outpost of the Moslem world and because it is a much drier land than north India.

Extracting myself from the maze of streets of Lahore to reach the Multan road, I continued through progressively drier agricultural country past Montgomery, and stopped at a small café to ask the way to Harappa. There an English-speaking blind teacher on his way from Lahore invited me to tea, and about half an hour later I set off with one of his companions. Our common language was broken Italian. Harappa is a small village beside a partially excavated town of the Indus Valley Civilisation—c.4000 to 1800 B.C.—with an interesting museum.

From there I took side roads to Jhang, and was rather surprised to cross the river Ravi by a primitive pontoon toll bridge. West of Jhang the country became much drier, suddenly agriculture stopped and I was in the Thal desert—on the wrong road too, or so a camel drover informed me. Returning seven miles and taking the correct road, I soon celebrated by letting the car get stuck in the loose sand. So I slept there. In the desert there are scattered villages watered by wells. They live mainly by pasturing herds of goats and camels on the scattered tufts of coarse grass and shrub.

From Darya Khan a narrow track leads across the rushy flood basin of the river Indus to a series of pontoon bridges—completed the previous week—over the courses of the river, which change each year on recession of the flood waters. The next bridge is 100 miles away. On the west bank lies Dera Ismail Khan where Fr. Herman Bruin, an old friend of mine, and Fr. Luif, were expecting me. During the days I spent with them I learned quite a lot about life in a North West Frontier town. D.I. Khan is an irrigated oasis of 100,000 people surrounded by desert. Dry and hot at October midday 110 degrees, nearly all houses are built of mud, even the best of them. The town, though dusty, boasts a large palm grove, much of it washed away by the Indus this year together with the vegetation in the ex-European sector.

With Fr. Herman I visited a number of the richer Moslems, and collecting some coins from Mr. Kitwai, the bank manager, I was surprised when told that a poorly dressed man we had tea with was

one of the local land-owning millionaires. We also visited some Christian families, who, belonging to the poorest social class, live in small, crowded mud huts. They invariably gave us tea and delicious cakes. When they discovered that I was studying medicine, a queue of potential patients materialised. Conjunctivitis caused by dust is common among children; and I gave some of my sulphonamide to a baby with dysentery, another common disease. Another day Fr. Herman, Mr. Kitwai and I visited Paharpur, the ruins of a medieval Hindu fortress on a hill overlooking the Indus. It must have been a very large fort.

Leaving D.I. Khan, Fr. Herman accompanied me to Bannu. On the way, having crossed some desert, we visited the mound of Acra—near Bharat. Spread over some three miles, it seems from the pottery and coin fragments we found, to have been inhabited from about 3,000 B.C. to after the 1st century A.D. The villagers of Kukhee, the adjacent village, invited us to tea, and their children produced some pottery figures they had found. After spending the night at Bannu mission, Fr. Herman and I parted company. I went to Rawalpindi and next day visited the museum and excavations at Taxila, which is the major city of north west India from before the conquest of Alexander the Great, 327 B.C., until the decline of the Kushans about A.D. 250.

In Peshawar, I stayed at the mission, and one evening visited the mosque, attending their sunset prayers, an interesting experience.

Afghanistan

Most of Afghanistan's half-dozen medium-sized towns lie on the arid plateau between 4,500 and 7,500 feet above sea level, which surrounds the Hindu Kush. One thousand miles wide, Afghanistan supports about twelve million people, including many nomads.

From Peshawar I negotiated the long Khyber Pass, climbing from a dry plain up barren valleys and gorges, where a few villagers scratch a living, on to the 7,000 foot plateau, where lies the oasis of Kabul beside its river, which is simply puddles in the autumn. Camping near Kabul, I was awakened by two soldiers with fixed bayonets. Apparently this desolate but beautiful mountainside was a military zone, so I retired down the valley to a vineyard. In Kabul I met one of the buses which each autumn run between England and India. They patronised the best hotel, but I retired to a cheap Asiatic standard one where, having chatted over supper with an army officer and shared his cup of tea, he insisted on paying my bill.

Next day, having visited the British Embassy, I obtained a travel permit from the Ministry of the Interior, and when completing my registration at the Police Headquarters, met a French lady driving from Paris to Madras, and some Russian workmen.

Although I saw no road sign in Afghanistan, this was no difficulty. My road was the only one leaving Kabul to the south, and led over the undulating desert-like plateau, with scattered tufts of grass; across which some camel trains made their way; but relieved by scattered oasis villages where streams or wells provided water originating from the mountains.

Before reaching Ghazni, I met a solitary hitch-hiker—Hans, a student from Heidelberg University—so we joined forces for 300 miles to Kandahar. On the way we passed a number of nomads making their way east down the hills to winter in Pakistan. The poor road made us take two days to reach Kandahar, where we stayed the night with a friendly teacher we met in a café. Kandahar lies in a small, fertile area. Lying at about 5,000 feet, it is one of the lowest and best-watered parts of the Afghan plateau, and has, apart from wheat, melons and temperate fruits, a number of vineyards.

From here the route continued across the arid plateau around the southern and western border of the Hindu Kush up to Herat, one of the largest towns in Afghanistan and the trading and agricultural centre of the west, A university student showed me the town, where I admired the beautiful mosque with fine domes and minarets covered with blue ceramic.

Striking west from Herat I reached the border to interrupt the official's game of cards.

Iran

Twelve miles away in the next village lay the Iranian border post, where I was supplied with an identity card. Going north-west, I visited Meshad; a holy city of the Moslems where the tomb of Ali—son-in-law of the prophet—is venerated. The shrine is closed to non-Moslems, and lies near an interesting bazaar. Meshad is a large town in a fertile fruit-growing valley.

The six hundred miles road from Meshad to Teheran runs between the Elburz mountains and the central desert. A region of desert-like wasteland punctuated by villages and small towns, which gain a living from scattered irrigated fields and barren pastureland,

they also are dependent on the neighbouring mountains for their water. However, the population is denser than in Afghanistan.

Here the car had its only breakdown—a spring snapped. A village blacksmith dismantled and riveted it while the café owner invited me to tea and the school teacher interpreted to the crowd who gathered. A hundred miles away, in the next town, I was able to get a new spring hand-made. Persians have a lot of practice in mending broken springs.

Following a long search around Teheran, I found the house of the Faruhar family, introduced to me by their niece at Guy's. After a welcome breakfast, a bath and some clean clothes I returned to respectability. The Faruhars were very kind, and I spent five enjoyable days there, learning something of the life in the capital of Iran: quite a contrast to life in its villages.

Off again, through the mountains of Adzarbaijan to Iabriz, I passed through a number of attractive small villages in mountain valleys. It was a change to cross a number of flowing rivers—but not all had bridges—with well-watered valleys. But much of the country is arid. Maku is an unusual small town in a narrow gorge near the Irano-Turkish border. Spread along the river and four hundred feet up the steep hillside, it is dominated by a castle at the base of a tall cliff. The gorge leads into a wider valley dominated to the north-west by Mount Ararat (Turkey), and to the north by Russian mountains. The mountains of north Iraq are not far away. All this region is a hive of military activity. I met soldiers patrolling in jeeps, on horseback, on foot, and even one who fell off his camel.

Turkey

Through the mountainous military zone of Eastern Turkey the route follows for some way the Murat Suyu, main tributary of the upper Euphrates.

Entering Turkey one notices a sudden change from Iran. The country is better watered and more prosperous, clean, whitewashed stone cottages replace mud huts, and the people are better dressed and less shy. In the fields the one bullock small ploughs give way to larger ploughs pulled by a pair, or even up to four pairs of bullocks.

From Erzurum, the chief town of Eastern Turkey, I took the mountainous route to Trabson on the Black Sea coast; across the passes of Kop, Vavak and Zigana. It was pleasant to camp by the stormy seashore one night, and next morning to investigate the adjacent ruins of a Byzantine fortress.

From the wet and fertile Black Sea coast I climbed up to the rolling Anatolian Plateau. In a progressively drier and less fertile region I visited the village of Alaçahoyuk to see its museum and the adjacent excavations of a Hittite town.

Next day, about thirty miles away, on a hill above the village of Bogazkale, the curator showed me around the extensive ruins of Hattousas—capital of the Hittite empire—which was destroyed about 1200 B.C. The city walls and massive architecture of the gates—one with carved lions—are reminiscent of the contemporary Greek towns of Mycenae and Tiryns. On an adjacent hill is a Hittite sanctuary

with some interesting carvings of about 1400 B.C., in a style reminiscent of the Assyrian, one showing the winged sun-god of the type used by the Zoroastrians of Persia, and also gracing the façade of the Bank Melli in Teheran.

It was a relief to return to familiar territory in Istanbul where, in the Yugoslav consulate I met two Mary's from Chicago and Sasha, and a German from Tokyo. As it was American Thanksgiving Day, we had a celebration supper. Next day, all four of us crowded into the car and departed west.

Europe

Anxious, for financial reasons, to reach our various destinations, we put on speed, spending one night in Greece and two in Yugoslavia and then we parted company in Trieste.

Four days later I arrived in Dover. The customs official took one look at my passport and the car and sent me on my way—home for breakfast ; 9,500 miles and two and a half months from Calcutta.

NOTICES

East Anglian Dinner

The Guy's Hospital East Anglian Dinner for 1964 will be held on Thursday, 14th May, at The Limes, Needham Market, near Ipswich, at 7.30 for 8.0 p.m.

President: Mr. J. C. Rowbotham, L.D.S.

Guest of Honour: Professor C. Keith Simpson, M.A.

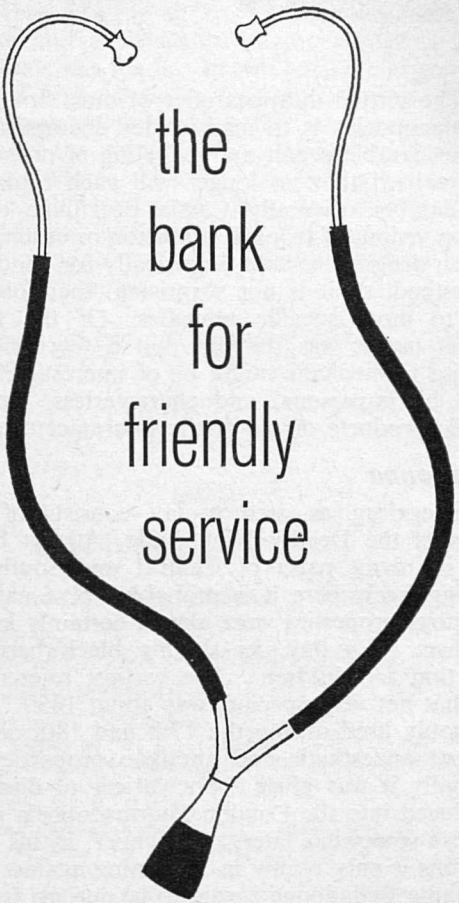
If any Guy's man in East Anglia has not yet received a notice of this dinner and would like to come, will he please write to Dr. A. Batty Shaw, 41, Newmarket Road, Norwich.

Guy's Hospital Ladies' Association Flower Service

The Ladies' Association is most urgently in need of help in connection with the above Service. Would any lady who can spare one morning a fortnight (from 9.45 a.m. to about 12.15 p.m.) to arrange the patients' flowers in the wards, kindly contact Mrs. Cooper, 34, Shepherd's Hill, N.6 (MOU. 9070).

Guy's Hospital Dental School—Alumni Luncheon

The Alumni Luncheon which is held on the occasion of the Annual Conference of the British Dental Association will take place at the Connaught Rooms, Great Queens Street, London, W.C.2, on Wednesday, 1st July, 1964.



National Provincial

The Guys Hospital Office, which is opened for your especial use, is under the management of Mr. W. C. Frankum, Southwark Branch, 12-14 Southwark Street, London S.E.1, and enquiries will be welcomed.

PHARMACLASSICA

The virtual disappearance of most botanical drugs from modern pharmacopoeias is to many older doctors and pharmacists a source of considerable regret and a feeling of nostalgia is engendered when it is realised that no longer will such romantic sounding names as Liquidamber orientalis, Cassia Braziliana or Rosa damascena conjure up visions of tropical profusion or eastern mystery. The majority of such drugs were used empirically for conditions of which little was understood, so it is not surprising, therefore, that many have given way to more specific remedies. Of the few remaining in fairly general use it was thought that a few brief notes of their history and use in medicine might be of interest before they, too, are superceded by impersonal and characterless, but far more efficient and specific products of the fertile pharmaceutical industry.

Belladonna

The drug as used to-day consists of the leaves and young shoots of the Deadly Nightshade, Atropa belladonna, which grows wild in many parts of Central and Southern Europe. Although growing freely here it is probably not a native of this country. Its poisonous properties were almost certainly known from earliest times for then, as to-day, its shining black berries must have been an attraction for children. The earliest reference to its medicinal use, and that not very specific, was about 1450. It appears to have been commonly used during the 17th and 18th centuries and was reputed to have anaesthetic and anodyne properties when used externally. Internally it was given for a variety of disorders. The leaves were introduced into the London Pharmacopoeia of 1809, the root coming into use somewhat later. Culpepper, in his Complete Herbal (1653) mentions it only briefly in a warning against its poisonous properties. The name Belladonna is said to be derived from the fact the Venetian ladies used a water distilled from the plant as a cosmetic to beautify the eyes. Only the herb (leaves and shoots) is now official and it is usually prescribed as the tincture or, less frequently, the dry extract. The chief active constituent of the drug is the alkaloid Hyoscyamine, which is readily converted into its isomer, Atropine. The main sources of Atropine, however, are other solanaceous plants which also yield the related compound, Hyoscine. Both Atropine and Hyoscine are extensively used as mydriatics. The main indication for Belladonna is as an antispasmodic, often given in conjunction with antacids in gastric and duodenal ulceration. A better understanding of the action of Belladonna led to a search for better, more potent and specific substances. The first to be tried were the isolated individual alkaloids and then various synthetic substances such as Propantheline and Dicyclomine were introduced. It can be said, therefore, that the research leading up to the introduction of modern antispasmodic-

anticholinergic drugs really started with the shiny black berries of Deadly Nightshade. A quantity of Belladonna is cultivated in this country for medicinal use and more extensively throughout Central Europe. With the outbreak of war in 1939 it was thought that supplies would be scanty and a successful attempt to grow Belladonna in the hospital grounds was made. In two harvestings sufficient leaves of good quality and high alkaloidal content were obtained to meet the Hospital's requirements throughout the war years and for some time after. The site of the plantation was the triangular flowerbed in front of the Nurses' Home. Incidentally, the inquisitiveness of a small child presented the students of that time with a classic example of Atropine poisoning which was promptly and effectively treated, the berries having, apparently, the same attraction to the city dweller as to his country cousin.

This series of articles on old and new remedies is being written for the Gazette by **Mr. J. Moore, F.P.S.,** *Chief Pharmacist to the Hospital.*

REPRINTS

Reprints of the following articles recently published in the *Gazette* are now available:—

Bermondsey and Southwark, IV., *" Life and Health "*, by Roger Blaney.

A Scientific Background to Clinical Medicine:—

1. *Fundamental Genetics* by B. J. Rickard.
2. *The Biochemistry of Genes* by W. L. G. Gent.
3. *Human Chromosomes and their Abnormalities*, by Janet Northfield.
4. *Inborn Errors of Metabolism* by P. F. Benson.
5. *Congenital Abnormalities* by R. G. Spector.
6. *Sex Determination and Development*, by J. L. Hamerton.
7. *Statistics in Clinical Medicine*, by C. P. Wendell-Smith.
8. *The Mitochondrion*, by A. N. Davison.
9. *Aspects of Normal and Abnormal Antibody Production*, by G. Payling Wright.
10. *Immune Diseases and Autoimmunity*, by M. H. Lessof.
11. *Transplantation Immunity*, by Shireen Saleh.
12. *Current Virology*, by R. H. Gorrill.
13. *The Genetics and Biochemistry of Drug Resistance in Bacteria*, by R. Knox.
14. *Isoenzymes*, by A. N. Davison.
15. *The Pathognesis of Cancer*, by J. O. Laws.
16. *Biochemistry and Schizophrenia*, by N. A. Gregson.
17. *The Chemistry of Connective Tissue*, by Margaret Whichelow.

These and subsequent reprints in this series, may be obtained, price 1s. each, from the Manager. Gazette Office.

THE WORK OF THE
Dental Estimates Board
AT EASTBOURNE

The majority of the 16,000 dentists in Great Britain work within the National Health Service. At present part of the fee for dental treatment is paid by the patient and the remainder by the Government. Only certain types of treatment, such as plastic fillings and simple dentures, can be undertaken by the dentist without prior approval, when working within the N.H.S. The Dental Estimates Board is concerned with the assessment of cases where approval is necessary, informing the practitioner of its decision, and with the preparation of payment schedules for work which may or may not have required permission. In addition the board compiles statistics relating to dental treatment for the Ministry of Health and maintains contact with disciplinary bodies.

At present there is considerable dissatisfaction among the dental profession concerning the current scale of fees for treatment, and the difficulties experienced in obtaining permission for more extensive restorations. It is the purpose of this article to show how the Dental Estimates Board deals with the administrative complexities involved in the dental treatment of the British Public.

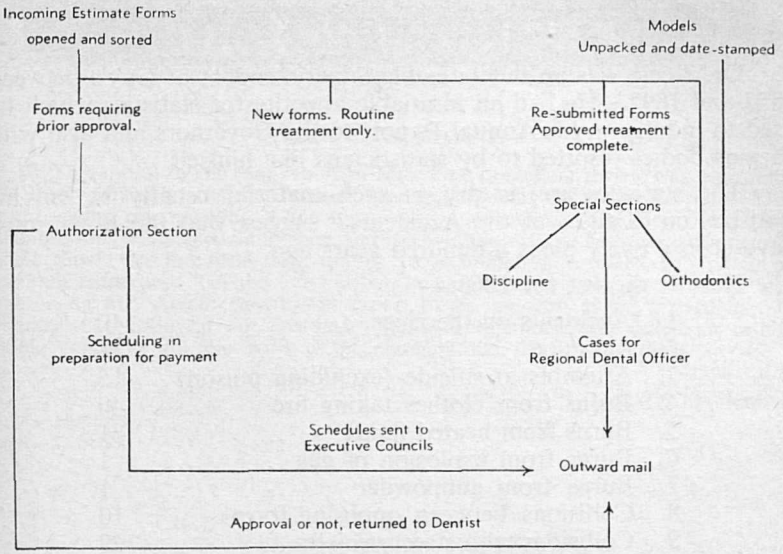
A General Outline

The Estimates Board is housed in a large red-brick building of Victorian design, a former preparatory school standing in pleasant grounds on the outskirts of Eastbourne. The chairman of the Board is always a dentist, and a staff of about 2,000 includes another thirty dental surgeons, although further consultant opinions may be requested. The Dental staff is largely concerned with the prescription and approval of orthodontic treatment, metal partial dentures, crowns, inlays, etc.

The practising dentist regularly sends estimate forms to Eastbourne and 80,000 such forms arrive daily. These may either (a) request approval for a planned course of treatment, or (b) indicate that routine or approved treatment is complete. Incoming mail also includes particular correspondence, radiographs and orthodontic and prosthetic models.

Where treatment is complete this fact is noted in the files of the authorization department and the estimate form forwarded for scheduling. If approval is necessary, then the staff of the authorization department, mainly laymen, consider the case with reference to their files. If permission is given, the amount and type of treatment is noted, and the form returned to the dentist, as it is if approval is refused. Completed estimates enter the scheduling section, where final payment schedules are compiled and sent to the Executive Council which serves the particular dentist.

The Orthodontic section concerns itself with the approval and advice of orthodontic cases. The largely professional staff may also seek outside opinion.



GENERAL ORGANISATION

Should disciplinary measures have been taken recently against a practitioner, then all his incoming work may be examined in a special department.

If the Estimates Board refuse approval for specific treatment, then the dentist may appeal against the decision. The regional dental officer is then consulted and he sees the case. Further appeal is possible when two general practitioners may be called to judge the case. The regional dental officer may also see patients treated by an N.H.S. dentist to check the standard of work and that treatment which has been paid for has, in fact, been done.

Comment

1. The employees at Eastbourne are not Civil Servants and do not enjoy either the rates of pay or the holidays of the service. Canteen facilities are lacking and working conditions with regard to lifts, noise and daylight are not ideal.

2. Much of the routine work is done by young girls, but automation might be introduced with success. Copious files have not yet given way to micro-filming.

3. The author went as a visitor with a student party and a genuine welcome was given. Considering the enormous amount of work the organization works excellently and is almost overwhelming.

4. The point is made that the task at Eastbourne is to apply rules and not make them, hence criticism of the board is misdirected.

5. A visit is helpful to enable one to obtain perspective, and the usual reaction is one of admiration.

I would like to thank Mr. A. H. R. Rowe for his help and criticism.

PETER A. SIMS.

Guy's a Hundred Years Ago

Dr. Steele was an indefatigable Superintendent at Guy's between 1853 and 1892. He had an insatiable appetite for statistics which he used to indulge in his Annual Report to the Governors and also with various bodies resorted to by statisticians like himself.

The statistics are as dry as such material usually is, but his statistics on "Causes of the Accidents" suggest that the Boro' must have been a lively place a hundred years ago.

Here is the list for 1863:—

1.	Accidents on the river	40
2.	Assaults	31
3.	Attempts at suicide (excluding poison)	15
4.	Burns from clothes taking fire ...	40
5.	Burns from heated fluids	31
6.	Burns from explosion of gas	1
7.	Burns from gunpowder	1
8.	Collisions between opposing forces ...	10
9.	Collisions with street vehicles	129
10.	Cuts and blows from sharp instruments	39
11.	Falls down stairs	33
12.	Falls from a height	172
13.	Falls on the ground	138
14.	Falls of heavy weights	88
15.	Gunshot wounds	5
16.	Machinery accidents	56
17.	Poisoning, accidental	3
18.	Poisoning, intentional	2
19.	Railway accidents	21
20.	Torsions of body	11
		866

The Casualty lists for other years are similar, with the occasional sinuous appearance of some biting Bermondsey snake which defies statistical analysis but is included in the poisons. Among the poisons used are:—

Chloroform,
Sugar of lead,
Nitric acid,
Sulphuric acid,
Spirits of hartshorn,
Syrup of poppies,
Atropine,
Opium,
Alcohol,

to mention only a few, and when you add to these lists the fact that there were said to be 460 cases of primary or secondary syphilis a year and that the average Boro' mother appears to have had ten children and that multip seventeens were quite common, a picture of human extravagance is suggested which is far removed from the Bermondsey and the Southwark of to-day.

E.R.B.

CORRESPONDENCE

Acute Osteomyelitis

SIR, One moral of the case report in Miss Pike's excellent review was not under lined, probably from her inherent kindness towards the paediatric staff. This moral is that osteomyelitis is not always easy to diagnose. Our first provisional diagnosis was acute rheumatic fever and the evolution in the first few days seemed to fit this. On the fifth day, routine re examination revealed a " point of maximal tenderness " in the left buttock and the diagnosis of osteomyelitis was made. As Mr. Austin Brown will expect of us, as soon as we arrived at this diagnosis, we followed our customary policy and immediately asked an orthopaedic colleague to join with us in planning the further treatment.

Yours, etc.

RONALD MACKEITH.

Guy's Hospital,
London, S.E.1.

Thoughts About Genetics

SIR Would you care to consider the accompanying few lines:

In Noah's day genetics was as simple as could be:
The animals went in two by two and came out one to three,
And this was noted later on by Mendel in his search
For numerical relations (that never came to Church).
Genetics in our day is composed of bits and pieces,
Of chromosomes and operons, of genes and factors (Rhesus).
On mathematic tables the feast is spread for days,
While students try to calculate the error of their ways.
Now wouldn't it be marvellous, wouldn't it be grand
If the Thread of Life would weave a tale we all could understand!

E. W. BAXTER.

Biology Department,
Guy's Hospital Medical School.

Rugby Behaviour

SIR, It is to be hoped that the letter (Gazette, 7th March) from Mr. T. L. T. Lewis and Dr. D. Stafford Clark (which should have been headed Rugby Spectator Behaviour) will be read by all those who carry the great responsibility of selecting the candidates for admission to the privilege of becoming a student at Guy's. Something more than "A" levels is required to make a Guy's man.

As one who had the honour to skipper the cup-winning side of 1929-30, I was as "unhappy" to read your correspondents' letter as they were to write it.

Yours, etc.,

T. G. ROBINSON.

Shadwell Towers,
East Boldon.

REVIEWS

THE MACHINERY OF THE BRAIN.

by D. E. Wooldridge. McGraw-Hill. First edition. 1963. Pp. 241. *Price* 23*s*.

This introduction to neurophysiology is written by a physicist interested in the application of purely scientific thought and methods to medicine. It is not primarily a book for doctors or students but rather for the mathematician and physicist as a light introduction to the current thought on the subject; though it would only be really easy reading to those with some grounding in biology. This does not mean that it is of no interest to the medical world; it is very refreshing to see well established concepts presented in a completely different way, with frequent and apt correlation with modern electronic apparatus. It will give any medical reader an illuminating and interesting light on basic neurophysiology in a language that is altogether different but nevertheless appropriate; as well as some insight into the workings of mechanical brains.

M. D. O'BRIEN.

A SYNOPSIS OF GASTRO-ENTEROLOGY.

by G. N. Chandler. Wright. First edition. 1963. Pp. 192. *Price* 27/6*d*.

This book is a successor to the Gastroenterology section of Sir Henry Tidy's Synopsis of Medicine and the author has attempted, with success, to obtain the economy and brevity of style found in the original book. There are eleven short chapters, each devoted to an organ and its diseases and the text is clearly set out with numerous sub-headings. No inessential words are included and much of the work is written without verbs, to read more than a few pages rapidly induces intellectual indigestion.

Dr. Chandler's facts and views leave little for one to quarrel over and it is a remarkable achievement to cover so much ground in one short book.

The value of the book to the reader, however, depends on whether the individual likes a concise and dogmatic presentation of facts or prefers a larger book which besides being more readable encourages the reader to think rather than to absorb.

The volume is pocket-sized, relatively inexpensive and probably of particular value to those revising for examinations.

J. R. SPURRELL.

NOTES ON CLINICAL SIDE-ROOM METHODS:

Prepared by the Board of Medical Studies, University of Edinburgh. Livingstone. 1963. Pp. 75. *Price* 7s. 6d.

This informative little book gives details of most of the tests that a dresser or ward clerk might be expected to make during his clinical period of studies. It is a paperback small enough to go in the pocket.

All the techniques are modern methods in current use. All the tests are explained, including the "Albustix" and "Clinistix" tests. There is a coloured page with the Ames Company colour guides for their tests which should be useful for those just starting their clinical studies.

The section on urine testing will prove useful to all students. The account of blood tests is very thorough, but too specific to be of much use to a student at Guy's. The tests recommended are not those used in the Haematology department. The counting methods are too complicated and the calculations are only worked out for the Improved Neubauer counting chamber. The synopsis of normal haematological values in the adult is a useful inclusion.

The remainder of the book carries details of gastric tests and brief notes on the examination of faeces, ascitic, pleural and cerebro-spinal fluid and sputum, and concludes with a simplified method for blood glucose determination.

This book is easily read in an hour, and a good index makes it easy to use. However, the price of 7s. 6d. is a little too expensive for it to be recommended for personal purchase.

ARTHUR MORRIS.

HEY GROVES' SYNOPSIS OF SURGERY.

Edited by L. T. Cotton. John Wright. Pp. 778. *Price* 52*s*. 6*d*.

The function of a synopsis, as the Editor points out in his Preface, is to be an aid in pre-examination preparation and to be a concise reference source for those actively concerned in the management of patients. My feelings on picking up this little book for the first time were those of repulsion at the idea of wading through hard packed facts with no verbal light relief. These feelings were entirely unjustified.

This is an excellent little book which has had a very large degree of popularity among those who have used it in preparation for their final Conjoint Surgery examination. The usual objections to synopses, that they are so fully packed with facts that they are boring to read and that because of their synoptic nature they are incomplete in their treatment of a subject, are completely untrue with respect to this little book. The presentation of material is neat, attractive and easily assimilated—in fact, a perfect example of how to answer an examination question—and, above all, accurate. I have not found nor heard of anyone finding an inaccuracy in this book; though, of course, the details of the treatment recommended sometimes reflect the author's preference.

The treatment of each subject is to divide it into its major classes and then to consider each separately. For example, Primary Malignant Tumours of Bone is divided into the five commonest types and each is then dealt with under the headings of Site, Age Incidence, Types, Clinical Features, Spread, Histology, Radiographic Appearance, Biopsy, Treatment, Prognosis and Differential Diagnosis all in less space than this review.

This Synopsis of Surgery, while definitely not a book to learn Surgery from in the first instance, is strongly recommended as an aide-memoire to those who are taking Final Surgery Examinations. The pass rate at Conjoint Surgery of those who I know to have used it was 100% in a sample of six.

ANTHONY DAVIS.

PSYCHOLOGY IN RELATION TO MEDICINE.

by R. M. Mowbray and T. Ferguson Rodyer. Livingstone. 1963. Pp. 399. *Price* 36s.

This book has been designed to meet the needs of the medical student who is studying psychology as part of his clinical training. It deals with human behaviour under the headings, The Organism, Higher Mental Processes and Intelligence and Personality. Each section is followed by a short list of references for further reading.

In a comparatively short space, an attempt has been made to introduce, discuss and occasionally explain the major theories of psychology. The relationship of psychology and medicine is not elaborated, being confined mainly to the application of psychological theories to mental illness. The subjects discussed are well presented and the book is fascinating to read. Unfortunately the authors have failed to stress the salient points sufficiently, and these are lost in the excessive quantity of new information presented. For the student whose primary aim is the study of psychiatry, this book fails to clarify his thinking, and is but little help in the increase of his comprehension of psychology.

ROGER GILKES.

GENERAL PATHOLOGY.

by Walter, J. B. and Israel, M. S. J. & A. Churchill Ltd. First Edition, 1963. Pp. 937. *Price* £5 0*s*. 0*d*.

The purpose of this book—as stated by the authors—is to provide a text in General Pathology for students up to the requirements for the Primary Fellowship. In this the book succeeds well. It briefly covers all aspects of Pathology that the student could require for qualifying and postgraduate degrees. It is clearly written, straightforward, well indexed and particularly well illustrated.

Those whose interest in Pathology runs deeper than the requirements of examination boards will find this book perhaps too superficial for their needs. However, deeper penetration of each topic—over the whole field—would have necessitated a much larger book and this was not the authors' intention. The book can be recommended as a grammar.

C. W. M ADAMS.

MODERN GYNAECOLOGY WITH OBSTETRICS FOR NURSES.

by W. Hector and G. Bourne. Heinemann. Third edition. 1963. Pp. 248. *Price* 17/6*d*.

This book, written by a sister tutor and an obstetrician, is admirably suitable for novice and expert alike. The subject matter is clearly presented and the majority of diagrams illustrate the text extremely well.

The revised edition has been compiled since the introduction of a three-month's obstetric course for nurses during general training, with the result that the chapters have been enlarged and contain more information, including the metric equivalents of important dosages.

The chapters on pregnancy, labour and delivery, and care of mother and baby, are particularly comprehensive. Included here was a very clear diagram explaining the foetal circulation.

One disadvantage of this book is the absence of a glossary which many nurses would have found very helpful. However, many points in each chapter have been brought to the reader's notice by the use of bold type.

Descriptions and illustrations of operations are concise as are the nursing instructions, but it must be realised that the latter may vary in different hospitals and depend on the surgeons concerned.

GILIAN GREENSMITH.

OUTLINE OF HISTOLOGY.

by G. Bevelander. Kimpson, 5th Edition, 1963. Pp. 114. *Price* 44*s*.

Clear printing, good reproduction of illustrations and a large number of blank pages for notes are excellent features of this book. It is hard, however, to be so enthusiastic about its content.

It has no introduction, but I infer from its title and the fact that one third of its pages are devoted to dental embryology and histology, that it is directed at preclinical dental students.

Criticism can be levelled on a number of points. The most important, however, is the fact that Dr. Bevelander has almost completely confined his description of the tissues of the body to their appearance under the light microscope. The nature of body tissues has been studied over the years by a large number of different methods and this multiplicity of approaches has afforded us a far greater understanding of the nature of body tissues than can be obtained by any one method. For example, his description of nerve fibres is quite lengthy, but structures are mentioned with little or no reference to any function they may perform. The relation of myelin to Schwann and glial cells as seen under the electron microscope is not mentioned. The thickness of nerve fibres, their degree of medulation and the distance between Nodes of Ranvier in relation to speed of conduction is also not mentioned. Reference to the spatial distribution of sodium and potassium ions across the nerve cell membrane is missing.

The author's notes on function are on the whole incredibly bad representations of present day knowledge of physiology. They are frequently preceded by an apologetic "are believed". For instance:—" . . . the heart includes a peculiar group of fibres known as the atrioventricular bundle of His, and a similar collection the sino auricular node . . . It is believed that this system of fibres correlates the contraction of different parts of the heart."

In addition there is a rather long discussion on the function of the Thymus, but its possible rôle in body immunity is not mentioned. The hypothalamo-hypophyseal tract is not mentioned in a description of the posterior pituitary. Alcohol instead of Xylol is said to dissolve myelin in routine histological preparations. The main excretory pathways are said to be respiratory, integumentary and urinary, the biliary and other alimentary routes of excretion escape inclusion in this classification. There is a drawing of an erupted tooth without enamel. There is no general description of the cell.

The student of histology can find many text books better than this.

IAN MACLENNAN.

SPORT

Reports and Results

ASSOCIATION FOOTBALL

Hospitals' Cup Semi-final

GUY'S A.F.C. v. ST. THOMAS'S A.F.C.

Result: won 5—1

On a crisp, cold, Saturday afternoon recently Guy's was seized with Cup-tie fever and at least four spectators streamed out to the London Hospital ground to see their heroes do battle with the gentlemen of St. Thomas's. The occasion was the semi-final of the United Hospitals' Cup Competition and on the season's results Guy's were favourites. However, a nagging doubt remained somewhere at the back of the mind of many of the supporters as to whether the team would be able to realise their potential now that the occasion warranted it. So often in recent years had we seen the team in a similar position only to be baulked by their own temperament.

The London ground is not one of Guy's happiest, being fairly small, rather exposed and invariably uneven. Added to this on the day was a very strong, cold wind blowing the length of the pitch which made us feel that elegant soccer would be at a premium that afternoon. Events were to prove this disappointingly true.

The game started like a Gilbert and Sullivan recitative—too much hurrying and scurrying to too little effect. Mid-field play was very scrappy with many passes going astray on both sides and at either end the defences had firm control of the few attacks that got as far as the penalty area. Gradually however, the superiority of the Guy's players in the basic skills of the game allowed them to get the better of the conditions and eventually of their opponents. St. Thomas's were pinned more and more in their own half and occasionally we were being given glimpses of the sort of soccer that has given Guy's victories over Birmingham and Reading Universities this season.

It came as no real surprise then when Guy's scored after about 20 minutes play. P. Davies, collecting a loose ball in mid-field, moved forward quickly and put across a long, low, curving pass around the full-back for Cutler, showing nice anticipation, to collect and put past the advancing goalkeeper into the far corner of the goal.

This, rather than stinging St. Thomas's into action, seemed to stun them, and Guy's kept up an almost continuous pressure until after about five minutes Cutler received a well-placed through ball from Powell-Jackson just outside the penalty area The centre-forward managed to hold off a tackle from the centre-half and hit the ball in full stride hard and low past the advancing goalkeeper. A fine goal—and we were treated to the customary entre chat!

After this Guy's seemed to lose some of their urgency and St. Thomas's came more and more into the game, although their attacks were proving more and more ineffectual in front of goal. Guy's defence, on the whole, had control of the opposing forwards, but at times were making simple mistakes which, perhaps, betrayed the underlying tension in the team. Such a mistake led to St. Thomas's getting their goal rather against the run of play. Their right-winger floated over a seemingly harmless centre in the general direction of his centre forward in the Guy's penalty area. As has so often been the case throughout the season, W. Davies was there to meet it first and all seemed well, when to everyone's surprise Davies headed the ball into the net past his goalkeeper, who had also come out to the centre. A fortunately rare mistake.

The supporters now began to wonder whether Guy's would go to pieces and allow St. Thomas's to take the initiative—a dangerous situation in any cup-tie. Our doubts were soon dispelled when Atkins scored a fine goal a few minutes before half-time. Beginning a dribble half-way inside the St. Thomas's half, the Guy's left-winger beat two defenders before finding himself near the corner of the penalty area. Everyone expected the floated cross which his fellow forwards were calling for, but instead Atkins suddenly lashed in a high, fierce shot to the top corner of the goal and virtually settled the outcome of the game.

Half-time came shortly afterwards and in the second half St. Thomas's rarely troubled the Guy's defence and although they continued to put up a fight, they played as if they already considered themselves out of the Final. Guy's for their part continued to keep up a fairly constant pressure and managed to score two more goals before full time, but on the whole it was fairly dour and uninteresting stuff. Really one should say that in the end the conditions won and dictated the play; certainly towards the end at least a quarter of the supporters was watching in the warm glow of the bar.

Let's hope for the same result and better soccer in the Final!

Team: Pinkham; Cochrane, Holden; P. Davies, W. Davies, A. Palmer; R. Shepherd, E. Elias, J. Cutler, J. Powell-Jackson, A. Atkins.

B. MASON

Hospitals' Cup Final

GUY'S v. THE LONDON

At Teddington. 14th March, 1964.

Result: won 6—1

Conditions for this match didn't augur well for skilful football, but despite a continual drizzle and slippery surface, a high standard of play was maintained for most of the game.

For the first ten minutes, play was very even whilst players settled down. W. Davies then put Guy's ahead from a penalty. This seemed to give Guy's the initiative and they proceeded to launch a series of thoughtful moves which might have quickly increased Guy's lead were it not for the determined and effective tackling of the London's centre-half.

Guy's wing halves and inside forwards were combining well at this stage to thwart determined attempts at attack by the London who had a slight slope in their favour.

The second goal resulted from a pass by Powell-Jackson to Cutler whose blocked shot rebounded for Atkins to score. This left the score at half-time as 2—0.

Soon after the restart, Cutler received a good pass back from the goal-line, turned under pressure and scored a fine goal. This seemed to put Guy's well on top and their football became more confident as a result.

Parry might lay claim to the fourth goal since he was the last Guy's player to touch the ball before the London's centre-half lobbed it, in an attempted back-pass, over the goal-keeper's head.

Powell-Jackson and Cutler deserve mention

for continual effort and much skill in the third quarter particularly

Palmer, shortly after the last goal, sent Atkins down his wing and Elias pushed his centre into the goal from right beneath the far post. After this, the fifth goal, Guy's became a little too nonchalant and professional in attitude and allowed the London to force a corner from which a good header rolled along and over the bar This was quickly followed by a fracas on the edge of the penalty area which might have been controlled by the referee more effectively.

The last Guy's goal was scored by Cutler who did well to collect a pass from P. Davies and score with a long shot at an angle.

London forced a consolation goal in the last few minutes through their inside left.

Guy's then, ran out fairly easy winners after putting up a most impressive display of constructive football, a just reward indeed for several members who have put much effort into Guy's football for a number of years and especially P. Davies, this year's able captain.

Team: G. Parry; P. Sheridan, J. Cochrane; P. Davies, W. Davies, A. Palmer; R. Shepherd, E. Elias, J. Cutler, J. Powell-Jackson, A. Atkins.

K. C. J. HUGHES

RUGBY FOOTBALL

GUY'S *v.* GLOUCESTER

At H.O.P. 21st March, 1964.

Result: lost 0—3

In their last game of the season, Guy's did well to hold a heavier and more experienced Gloucester side to a try to nil. Guy's had two changes due to injury; Biggs, in his last game, and MacGregor. Their places were taken by Fleming-Jones and Griffiths.

The first half was very much a stalemate; play being centred around the half-way line for much of the time. The pitch was very heavy and with Gloucester having a great amount of the possession, the Guy's covering did well to repel many attacks. Guy's attacked through their scrum-half who broke open, linking with Fleming-Jones, but was unable to hold the return pass. Edgar also made a fine run down the touchline, only to be foiled by the full-back. Morris had three long penalty shots at goal but failed with the heavy ball, otherwise his fielding and touch kicking were impeccable.

In the second half, Gloucester's fly-half, with the wind behind his back, repeatedly put his pack into the opposing twenty-five. These tactics were finally realised when there was a fumble at the back of a scrum on the Guy's line and the Gloucester back row pounced to score near the touch line. Guy's retaliated with some loose rushes, one especially when Price broke away into the opposing twenty-five, but the Gloucester covering just managed to snuff the attempt.

RIFLE CLUB

In the Inter-Hospitals' Competition just completed, some excellent results were obtained. In the Lloyd Cup for Hospital "A" Teams, Guy's finished 2nd to University College Hospital in a field of seven teams. This is one place better than last year.

The "B" Team finished 3rd in their league to University College and Westminster Hospitals. There were seven teams in the league.

R. Ringrose, P. L. Jordan, W. Gill and J. Dussek have all shot particularly well in these leagues.

"A" Team:
Shot 6, won 5, lost 1. Agg. 2882. Posn. 2nd.
"B" Team:
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Trials for full-bore shooting at Bisley have been arranged for April 18th and 26th. Details to be posted on the Notice Board.

HOSPITAL INFORMATION

HOSPITAL INFORMATION

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Applications are invited for the post of **locum Orthopaedic and Casualty Registrar** (middle grade) including duties in the hand clinic and the children's burns unit. Appointment from 11th May, 1964, or as soon thereafter as can be arranged until 30th September, 1964. Application forms are obtainable from and should be returned to the Superintendent, Guy's Hospital, London, S.E.1., not later than **17th April, 1964.**

GUY'S HOSPITAL, LONDON, S.E.1.

Applications are invited for the post of **locum Senior Registrar** in the **Thoracic Surgical Unit** with duties to commence on 1st May, 1964, and appointment until 30th September, 1964. Application forms are obtainable from, and should be returned to, the Superintendent, Guy's Hospital, S.E.1., not later than **17th April, 1964.**

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Dental Casualty Department.
Registrars to attend on 6 or 5 sessions per week.

Minor Oral Surgery Department
Registrars to attend on 6 or 3 sessions per week.

Dental Radiology Department
Registrars to attend on 6, 5 or 3 sessions per week.

The posts will be subject to the Terms and Conditions of Service of Hospital Medical and Dental Staff in the National Health Service. Forms of application are obtainable from the Superintendent, Guy's Hospital, London, S.E.1., which when completed should be returned not later than **Wednesday, 29th April, 1964.**

GUY'S HOSPITAL DENTAL SCHOOL

Applications are invited for the appointment of **Full-time Lecturer in the Department of Dental Prosthetics,** appointment to date from 1st October, 1964. Salary scale: £1,580 x £110 to £1,690 x £115 to £2,150 x £110 to £2,480 x £55 to £2,535, with superannuation and family allowance. Application should be made on a form, obtainable from the Dean, not later than **Wednesday, 29th April, 1964.**

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Applications are invited for the appointment of **Lecturer in the Department of Special Anatomy and Histology** with attendance on six sessions per week and duties commencing on 1st October, 1964 Application should be made on a form, obtainable from the Dean, not later than **Wednesday, 29th April, 1964.**

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PAPERS BY GUY'S MEN

In order to make this list as complete as possible, Guy's men whose papers have not been printed in this column are asked to send the Editor details of their publications.

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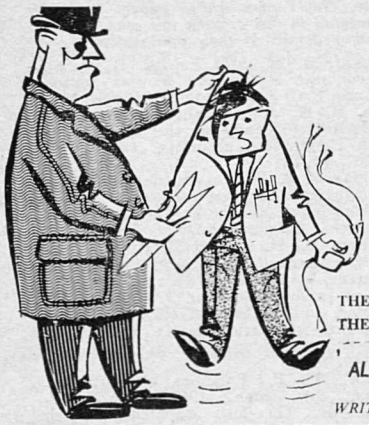

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MARRIAGES

BRADLEY—NEWBOLD.—On February 1st, in The Chapel of Our Lady Undercroft, Cathedral Church of Christ, Canterbury, Alan Bradley, L.D.S., R.C.S., to Janet Newbold.

WALDEN—EDWARDS.—Mr. John Walden to Miss Sally Edwards, S.R.N., S.C.M., on 21st March, 1964, at Aldeburgh, Suffolk. Their future address will be:—Box 452, Umtali, Southern Rhodesia.

IN MEMORIAM

In ever loving memory of John Gavin Stebbing, M.B., B.S., died March, 1957.

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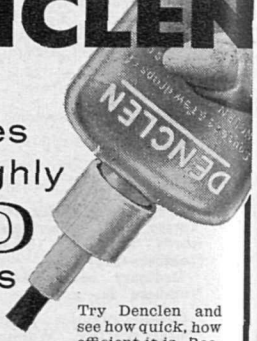

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18th April 1964

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Editors *T. C. Davis*
B. H. Hicks

Sports Correspondent *N. J. Knott*

Guy's Hospital, London

PASSIM

Everyone in the hospital and many without will have felt a deep sorrow when the news came of Professor Payling Wright's sudden death. He has given so much to this hospital and to medicine that it is a cruel blow indeed. We offer our deepest sympathy to his widow and family. An appreciation of himself and his work will appear in the next issue of the *Gazette*.

Practice in Danger

The strike of Belgian doctors must have roused some mixed feelings amongst British practitioners, justifiably unhappy about their terms of service and remuneration. Even those who question the means whereby the Belgian profession expressed their objections cannot fail to sympathise with their reaction to a health system that threatened many essential principles of medical practice, including professional secrecy, the patient's free choice of doctor, and the doctor's free choice of treatment. This may put our NHS in something of a better light, but it is also a cautionary tale, of what a health service could, but must not, become. The immediate threat in the NHS is not, however, to any principles of professional etiquette but to the survival of good general practice.

In recent months, much has been written by, at and about the family doctor, and the urgent need for changes in administration need hardly be stressed. These changes would be concerned mainly with the financial recognition of experience in practice, degree of treatment at home, and of expenses incurred in improving or maintaining the surgery (all lacking at present). One might hope, too, for a theme of simplicity in the variations on forms and certificates now so rife. But other complaints are also in the air.

One such complaint is of the practitioner's loss of status. It is too readily assumed that the Minister of Health must bear responsibility for this change as much as the others, when other factors are in reality playing a great part. In a society ever more educated, more affluent and more aggressively democratic, automatic respect for any authority other than that of money is becoming increasingly rare ; as professions other than medicine also know to their cost. Are we right in bemoaning our loss? This loss may damage our collective ego, it may be inconvenient in achieving a good doctor-patient relationship, but it is secondary to a maturing of our patients' mentalities. Even if this were not in itself good, any sacrifice of that automatic respect called "status" should make way for a personal respect to be earned more slowly, surely and also selectively; hardly an obstacle to good practice. These changing public attitudes may demand more radical changes than new approaches by the family doctor, or more out-patient appointments. The doctor of the rural area may give way to the comprehensive "health centre" run co-operatively by four or five practitioners, with extension of their work into more obstetrics, minor surgery and casualty. In the urban densities a hospital-conscious

public might prefer a form of public clinic to the present practitioner system, and such a clinic might be more capable of coping with the sheer profusion of patients, in their numbers and attitudes so discouraging to the conscientious GP. Such possibilities are no total alternative to practice of present-day form, but probably have a valuable place in plans for the future, and opposition on any sentimental grounds of professional traditions must take second place to the better interests of the patient.

In this moulding of the future Health Service the responsibility lies primarily with the profession, and after 16 "socialised" years there is a limit to which even responsibility for the past can be laid on lay shoulders, political included. As the Belgians have reasoned, the ultimate interests of physicians and their patients rarely cross. As they unwittingly demonstrated, those interests are better served by leading a government than by trying to sink it.

We are authorised to deny emphatically rumours that Guy's students have been on a sit-down strike for the last two months, and that no one noticed any difference. Confusion arose because of the ban on overtime which, take-in and Christmas apart, has been in operation since 1825. When it comes to work, there's always that noble motto: "*Dare quam Accipere*".

Mr. Edward G. Slesinger, O.B.E., M.S., F.R.C.S., has been appointed Chairman of the Board of Governors as from 1st April, 1964. It is a happy appointment; his service has been much appreciated in the past and will be invaluable in the future.

GUY'S DIARY

APRIL			
EXHIBITION.			*The Hip.*
21st	T.	1.00	Professor ATKINS. Clinical Lecture. *Breast Cancer in General Practice.*
23rd	Th.	1.00	Professor D. J. ANDERSON. Clinical Lecture. *Physiology of Toothache.*
24th	F.	1.00	Dr. KAUNTZE. Clinical Lecture. *Cardiac Failure.*
25th	S.	10a.m.	Clinico-Pathological Meeting. Clinical Theatre.
27th	M.	1.00	Mr. STAMM. Clinical Lecture. *Chronic Arthritis of the Hip Joint.*
30th	Th.	1.00	Mr. WASS. Clinical Lecture. *Clinical Judgment (or lack of it) in Modern Surgery.*
30th	Th.	5.00	Dr. E. M. CREAK. The Sarah Stolz Lecture. *Child Psychiatry Looks Ahead.* Anatomy Theatre.
MAY			
4th	M.	1.00	Dr. HELLIWELL. Clinical Lecture.
5th	T.	1.00	Dr. KENDALL. Clinical Lecture.
7th	Th.	1.00	Mr. GLOVER. Clinical Lecture.
8th	F.	1.00	Dr. SCOTT. Clinical Lecture.

Insulin

by STEWART CAMERON
Department of Medicine

Introduction

"Molecular biology" has suddenly become fashionable, but we need to remember that this does not only concern the transmission of *genetic* information. All our metabolic processes are guided and controlled and one aspect of this control is the transmission of information—"orders"—by means of molecules. Cellular control is always mediated, at a cellular level, by messenger molecules.

This idea of chemical messengers has only arisen during the last fifty or sixty years, but is now a familiar part of all our thinking. The aspect discussed in this article is the action of a particular messenger, or hormone : insulin. There are no doubt good reasons for insulin being a peptide, hydrocortisone being a steroid and acetylcholine a simple amine. At present we can only speculate what they may be. How and why has the action of insulin been studied, what results have we obtained, and can they be related to the idea of insulin as a regulator and director of cell metabolism?

The word insulin immediately brings to mind another word—diabetes. Although known since antiquity, our knowledge of diabetes has been until recently very slight. Sir William Gull is reputed to have said of William Pavy, who was investigating carbohydrate metabolism in diabetes at Guy's in the 1880's, "what sin has he committed or his fathers before him, that he should be condemned to spend his life seeking a cure for an incurable disease?" Most of our knowledge of the physiology of insulin—like so much of our physiology—has come from investigation directed towards solving a clinical problem. We no longer regard diabetes as incurable, but we still cannot control the damage done by the disease to eyes, kidneys, blood vessels or nerves, nor predict where, when or in whom they will appear. Diabetes itself is not discussed in this essay, and will not be mentioned again, but all the information presented here has been gathered in the shadow of this ancient disease.

Insulin in the Pancreas

The first observation was that made by von Mering and Minkowski in 1886 that the urine of dogs, from whom the pancreas had been removed, was sweet. This indicated that the pancreas might have an influence in lowering the blood sugar. Shortly afterwards, the idea of hormones having evolved, the hypothetical hormone secreted by the pancreas which lowered the blood sugar was given

the name "insuline", long before its discovery. This name was chosen on the correct assumption that it was produced by the small islands of granular cells lying among the acinar, exocrine pancreas. After numerous very near misses an extract of pancreas which would lower the blood sugar was prepared by Banting and Best in 1922. If one believes in an apocalyptic growth of knowledge then this was undoubtedly a "landmark" in the history of research. In fact, it was the logical outcome of a decade's hard work by numerous investigators ; its outstanding importance was emotional, in that the lives of thousands were saved by the clinical application of the discovery.

Most of the work on the production of insulin by the islet cells has had to be done by the relatively clumsy techniques of histology, and it is a tribute to those employing them that we have learned so much. Insulin biosynthesis is only now beginning to be studied in isolated islets and in pancreatic slices. It appears that the insulin is stored in the prominent cytoplasmac granules seen in the islet cells, and that when an adequate stimulus is presented to the cells these granules migrate to the cell membrane contiguous with a capillary wall, fuse with it and release their contents into the bloodstream. What is the adequate stimulus? It has been shown that a rise in the glucose content of the blood perfusing the pancreas will cause the release of insulin into the blood draining from it, and this probably represents the normal event. But we have no idea whatsoever how this rise in blood sugar is "sensed" by the cell or how it might lead to the release of stored hormone or even whether new hormone is synthesised. Recently it has been shown that the oral anti-diabetic agent, tolbutamide, causes release of insulin; the amino-acid leucine will also do this to a slight extent in normal people, and in a group of individuals with an inherited abnormality leucine causes a great release of insulin. We should learn a great deal about the normal mechanism of promoting insulin release from studies of these patients, and of isolated islets *in vitro*, which are in progress.

Insulin in the Plasma

Only in the last twelve years has it become possible to measure the tiny amounts of insulin circulating in the plasma. When this was done a number of discrepancies became apparent. At first, all the methods available measured some biological effect of insulin. The effect of insulin in these systems had to be distinguished from other substances that might promote or inhibit the action taken as an index of insulin-like activity. First, it appeared that diluting the plasma revealed more activity than was present in the undiluted plasma. If the plasma was extracted by a method used for obtaining insulin from the pancreas, then again more insulin appeared to be present than was shown in the untreated plasma. When an assay based on the metabolism of fat was evolved, the values obtained for normal plasma insulin concentrations were all higher than those with the older methods employing rat muscle. Finally, to complicate the situation still further, when assays based on the combination of insulin with an anti-insulin serum were introduced, only very small amounts of insulin were found in the plasma. From these observations has come the

idea that insulin does not circulate in simple solution in the plasma, but that a considerable part, probably the greater part in the fasting individual, is in combination with a carrier.

There is evidence that this "carrier" is a protein, and that the insulin-carrier complex has a molecular weight of about 70,000. Insulin readily enters into loose combination with basic proteins; for example, a combination with protamine is used to prolong the action of the commercially available product. The insulin bound to the plasma carrier is not available to stimulate muscle *in vitro*, but fat appears to be able to cause a slow release of the active molecule from the complex—hence the higher plasma insulin values measured by fat. Similarly, the complexed insulin is not free to combine with anti-insulin serum and is therefore not antagonised by such serum, nor is measured by methods which depend on this combination.

A number of problems remain. Is the insulin released from the pancreas as insulin, or as the insulin-carrier complex? Some evidence suggests that it is released free, and complexed in the liver (see below). Other evidence, that hyperglycaemia causes release of large quantities of free insulin but that the quantity of insulin-carrier complex remains fairly constant. The complexed insulin, even though it cannot be antagonised by anti-insulin serum, may even in the presence of the serum act on fat. This would imply that release of the free insulin molecule from the complex may not, or need not occur. All these studies have been carried out *in vitro* and we must apply them with caution to the intact animal. The relation between insulin combined to a carrier, insulin measurable *in vitro* by fat and muscle, and insulin which can be negated by anti-insulin serum is more complicated than the simple account given here would suggest. It may be that the situation is even more intricate and that several "systems" of the hormone exist in the relation : islet cell $\rightleftharpoons$ plasma $\rightleftharpoons$ tissue.

Insulin and Tissue

Early studies on the action of insulin were hampered by the impure nature of the preparations used, but the overwhelming evidence was present from the start that insulin would lower the blood sugar concentration in both normal and diabetic people. This has led to insulin being thought of as a "sugar" hormone. The equally prominent effects on fat and fatty acids and protein could not be measured until more recently and even in the whole animal an overall uptake of phosphate, potassium, fatty acids and amino-acids can be shown under the influence of the hormone. Some of these effects can be shown *in vitro* to occur in the absence of glucose. There is no doubt that the action of insulin is that of a general metabolic hormone and not one confined to influencing carbohydrate metabolism.

Action on Muscle

Both *in vivo* and *in vitro* insulin will promote an uptake of glucose against a concentration gradient. Very small amounts of insulin will bring about the uptake of very large amounts of glucose.

Attempts to measure this relationship have been difficult but probably somewhere about 10^8 molecules of glucose are taken up for each molecule of insulin. Insulin stimulates all the known routes of disposal of glucose in the tissues, but seems to cause a disproportionate amount of the glucose taken up to be converted to glycogen. It also accelerates the uptake of amino-acids and their conversion into newly-synthesised protein, even when glucose is not present. How does the insulin bring about glucose entry into tissue? Studies have been made of dogs from whom the liver and other viscera, including the kidneys, had been removed; *in vitro* work on the rat hemidiaphragm, the perfused rat heart and the anterior chamber of the eye has been done. All this information leads to the conclusion that the main action of insulin is on the cell envelope, or membrane. The exact mechanism is not known; either insulin speeds up processes already in operation, opens up new ones, or perhaps even removes an inhibition of glucose entry normally present. Studies with other related sugars have shown that the mechanism is fairly specific, although not exclusive to glucose. No action on any isolated intracellular enzyme system has been shown, and non-metabolisable sugars such as 3-deoxyglucose are transported under the influence of insulin, so that entry of glucose does not appear to be dependent upon its disposal within the cell.

One aspect remains unexplained by this hypothesis of insulin action on the cell membrane. How does the insulin direct the glucose toward glycogen synthesis rather than being burnt to CO_2 and water? Many circumstances will increase glucose uptake of muscle (for example, salicylates and anoxia) but only insulin will increase the proportion of glycogen synthesis. There is also some evidence that insulin increases glycogen synthesis in damaged rat hemidiaphragms when glucose entry to the tissue is quite free. It is probable that besides its action on the muscle cell membrane, insulin also has an intracellular role in the direction of the metabolic fate of the glucose. How this action occurs is unknown.

Action on Fat

Insulin also promotes an immediate large uptake of glucose by adipose tissue. Fat is very sensitive to insulin, especially when considered in relation to the metabolically active mass of the tissue rather than its total mass. As with muscle, access to intracellular water is permitted by the hormone. It is probable that most of the glucose disposed into the tissues under the influence of insulin goes into triglyceride fat, although glucose oxidation and conversion to glycerol are increased. The glucose taken up is directed toward fatty acid synthesis and incorporation into freshly synthesised lipid. It is difficult to see how this action could be produced by a membrane action alone. One interesting observation made on fat is that insulin will stimulate pinocytosis, or "cell drinking" by adipose tissue cells. It is attractive to think that this might be the basis for the increased glucose transport into the tissue, but unfortunately the volume of ingested water is far too small to account for the total amounts of glucose which may be transported under the influence of insulin.

Insulin also increases the uptake of fatty acids and their incorporation into lipid, especially when glucose is present. The release of fatty acid from the triglyceride already stored is also inhibited. When large quantities of fatty acid are being released into the intracellular water and from the tissue by breakdown of triglycerides, the tissue becomes insensitive to insulin and glucose transport is not so effectively increased by the hormone.

Action on Nervous Tissue

Until recently it had been thought that the entry of glucose into the nervous system proceeded at maximum rate without the intervention of insulin. In the retina this is certainly true. Some recent evidence from brain slices indicates that insulin may, after all, affect the entry of glucose into nerve cells and this has been confirmed by *in vivo* studies on man.

Insulin and the Liver

At this point it is worth considering the fate of secreted insulin. Most of our information in this field has come from studies with the hormone made detectable by the addition of I^{131} to the molecule. The small amount of work done with stable insulin, however, confirms the conclusions reached with the trace-labelled molecules.

All insulin secreted from the pancreas enters the pancreatic-duodenal vein and passes through the liver before entering the peripheral circulation. Has this arrangement any functional significance?

Of the secreted insulin, between one-half and one-third is taken up by the liver in a single circulation through the organ. The greater the quantity of insulin presented, the smaller proportion is taken up. This will have the effect of smoothing out, but not eliminating, the variations in plasma insulin when the pancreas is stimulated. It is also obvious that the liver will very quickly take up any free excess insulin which may return to it via the portal circulation or the hepatic vein. Another organ which takes up large quantities of insulin is the kidney. In terms of total quantity of insulin, adipose and muscle tissue take up a trivial quantity, even when the insulin is presented to the periphery first through a systemic rather than a portal route. It seems that there is an elaborate and highly effective system for the removal of insulin from the bloodstream, and that only a small part of secreted insulin is taken up by, or acts on peripheral tissues.

In the liver, and in the kidney, the insulin is very rapidly broken down by a pair of enzyme systems. Does all the insulin taken up by the liver have any action on its metabolism?

The intracellular water of the liver is completely accessible to glucose, at least in the rat. If a glucose load is presented to the liver, it will respond even in the absence of insulin, by storing the excess glucose as glycogen. In addition, the liver is continually breaking down this stored glycogen and releasing glucose which maintains the level of blood sugar. This double metabolic pathway, and the difficulties of access to portal vein blood hindered the investigation of

insulin action on the liver in intact animals and in man. With successful use of isolated, perfused livers, it has now been shown that insulin will promote glucose storage in the liver at lower blood sugar levels than without the hormone, and that it will reduce hepatic glucose output. The hormone also has a dramatic effect on the exchange of potassium in the liver, as it does upon fat and muscle. This action of insulin upon liver metabolism cannot be a membrane effect, since glucose can enter the live cell quite freely.

Exactly how important the presence or absence of insulin acting on the liver may be in the economy of the whole animal cannot be guessed at present. What is certain is that the liver acts as a "watchdog" for removing insulin from the circulation. There is also some evidence that it may be involved in the conversion of free insulin to insulin in a complex form; so far, this observation lacks support.

Insulin does not appear to affect greatly the metabolism of kidney in spite of its large uptake. Few studies, however, have been directed at this problem.

The Insulin Molecule and its action on Tissues

So far we have not considered the basic structure of insulin. It consists of two peptide chains, A and B, 21 and 30 aminoacids long, with three disulphydryl linkages. This unit has a molecular weight of just under 6,000. The structures of insulins from different mammals is very similar, and differ only in respect of one or two aminoacids at positions 8, 9 or 10 in the A chain.

Probably the molecule as stored in the pancreas is a dimer of this 6,000 m.w. structure linked with one atom of Zn^{++}. The Zn^{++} may be linked to the B^{10} histidine and B^{13} glutamate residues of each 6,000 m.w. unit. What we most wish to know however, is the structure of insulin *as it acts upon cells*. It is known that insulin is not in simple solution in the plasma and even insulin solutions behave in a complex fashion according to the pH of the solution and the concentration of hormone. We have no idea how the form of the insulin molecule active *in vivo* may be related to the structure in the figure. To take one example of the questions still unanswered, is the structure folded, and if so, how?

Almost certainly some part of the molecule represents "active sites" which are important for its action. For example, there is evidence that substitution of Iodine in the tyrosines A^{14} and A^{19} is innocuous, but that the activity of the molecule is reduced if the B^{26} tyrosine is substituted. There is some evidence that the sulphydryl groups are involved in the attachment of the hormone to tissues, but studies in this direction have been hampered in that pure crystalline insulin forms a variety of loose chemical attachments to any polar surface. Paper, glass, polythene and even dead tissues may show "uptake" of insulin. Whether the insulin molecule is consumed as a necessary part of its action is unknown.

Conclusions

Any general conclusions are hampered at the present time by our ignorance of so many important aspects of insulin action. At the

moment, insulin is best considered as a hormone acting widely on tissues to regulate the levels of available energy within the cell. In general, it promotes the storage of potential energy as glycogen or fat, at times of excess food. It may also have a role in regulating cell growth; of this we know nothing. To consider the aspects of homeostasis concerning insulin in isolation, while informative, is an artificial exercise. All the actions in which insulin may be involved are smooth integrations of many other processes.

SUGGESTIONS FOR FURTHER READING.

There is an enormous literature dealing with insulin and its actions. The following will be found of use as an introduction.

GENERAL:

Krahl, M. E. (1961). The action of insulin on cells. Academic Press, London and New York.

The mechanism of action of insulin; a symposium. (1960). Edited by Young, F. C., Broom, W. A. and Wolff, W. F. Blackwell, Oxford.

Insulin (1960) Brit. Med. Bull, **12**, No. 3. British Council, London.

EARLY WORK:

A fascinating and instructive glimpse of work on insulin before Banting and Best is the following:

Knowlton, F. P. and Starling, E. H. (1912) J. Physiol (London) **45**, 146.

Banting & Best's original paper is: J. Lab. clin. Med. (1923) **7**, 251.

INSULIN IN THE PANCREAS:

Lacy, P. E. and Hartroft, W. S. (1959). N.Y. Acad. Sci. **82**, 287.

Tolbutamide and insulin release:

Williamson, J. R., Lacy, P. E., and Grisham, J. W. (1961) Diabetes, **10** 460.

INSULIN IN THE PLASMA:

Vallance-Owen J. and Wright P. (1960) Physiol. Rev. **40**. 219.

Randle, P. J. and Taylor, K. W. (1960) in: Hormones in the blood. Eds: Gray, C. H. and Bacharach, A. L. Academic Press, London and N.Y.

Antoniades, H. N., Beigelman, P. M. Tranquida, R. M. and Gundersen, K. (1961) Endocrinology, **69**, 46.

Samaan, N. Fraser, R. and Dempster W. J. (1963) Diabetes, **12**, 339.

INSULIN ACTION ON MUSCLE AND FAT:

Levine R. (1962) Diabetes, **10**, 421.

Chain, E. B. (1959) Brit. Med. J. ii, 709.

INSULIN AND THE LIVER:

Cameron J. S. (1962) Guy's Rep. **111**, 145.

INSULIN UPTAKE BY TISSUES:

Butterfield, W. J. H., Garratt, C. J. and Whichelow, M. J. (1963), Clin. Sci. **24**, 331.

Garratt, C. J. (1964) Biochem. J., **90**, 17P.

Edelman, P. M., Rosenthal, S.C. and Schwarz, I. L. (1963) Nature, **197**, 878.

Finally, a useful introduction to ideas of insulin action in relation to diabetes mellitus is:

Butterfield, W. J. H. (1961) Brit. Med. J. i, 1705.

NOTICE

Clinico Pathological Conferences

On the fourth Saturday of each month the Clinico-Pathological Conferences arranged by Dr. de Navasquez in conjunction with the Surgical Department will continue as before with the exception of the months of July and August. Announcements in regard to these will appear as usual in the Gazette. There will be no further Departmental Rounds on the second Saturday in the month until September.

OPIUM

The medicinal properties of the juice of the Poppy have been known from a very remote period. Theophrastus, who lived at the beginning of the 3rd century B.C., was certainly familiar with the drug. Writings of about A.D.40 describe the methods of procuring the drug and Dioscorides, A.D.77, plainly distinguishes the juice of the capsules from an extract of the whole poppy plant which he regarded as much less active. He also refers to the adulteration of Opium with the milky juices of other plants and with gum. The drug is mentioned at some length by Pliny and more frequently by Celsus in the 1st century as well as by numerous later writers of the classical Roman period. Opium is featured in many ancient remedies for dysentry, ague, vomiting, as well as for the relief of pain. It was one of the 50 or so ingredients of Mithridatum or Confection of Damocrates. Pereira is reputed to have said that "Opium is the most important and valuable medicine of the whole materia medica and the source, by its judicious employment, of more happiness, and by its abuse, of more misery than any other drug employed by mankind". The only variety of Opium known up to Roman times was probably that from Asia Minor and, possibly, Macedonia. The introduction of Opium into India seems to have been connected with the spread of Islam, the Arabs and Persians having obtained their original supplies and knowledge of the drug from Grecian sources. By the time the Portuguese reached India, Opium was a valuable item of commerce worth three or four times as much as Camphor, Benzoin and other rare spices. The Mogul Empire derived much revenue by the sale of the Opium monopoly and the East India Company, later, reserved to itself the right of cultivation of the Opium Poppy and the sale of Opium. There is evidence to show that Opium was first introduced into China as early as the 9th century. Up to the 18th century the Chinese imported the drug as a return cargo in their junks trading with India. In the late 1700's the trade was mostly in the hands of the Portuguese although the British in India were winning a larger share. The prohibition of the free entry of Opium into China was one of the causes of the so-called Opium Wars, concluded by the Treaty of Nankin (1842), which opened up trade with the whole of China through the Treaty Ports. Up to about 1770 the use of Opium had been almost exclusively as a remedy for dysentry. The vice of Opium smoking seems to have begun in China during the second half of the century, undoubtedly encouraged and abetted by the greed for trade in the Far East on the part of Britain and other European countries who were not too scrupulous about the consequences. The practice of Opium smoking and eating spread throughout the great empire and beyond and would probably have spread still more widely had it not been checked and confined by narcotics and dangerous-drug restrictions brought into force to control and prevent contraband dealings in this and other habit-forming drugs.

Nevertheless, the addiction to Morphine, whether smoked as Opium or injected as Heroin, is a serious world-wide problem.

The production of Opium is basically the same whatever its country of origin. The unripe capsules of the Opium Poppy, Papaver Somniferum, are incised overnight and the exuded milky juice collected the following morning. The juice is partially dried, either naturally or artificially, and the soft mass collected into balls or cakes. For export the Opium balls are wrapped in dried poppy leaves or coloured paper and then packed into bales or crates. The shape of the cakes and the material and methods of packing are one of the distinguishing features of Opium from the various producing areas, which are chiefly the Balkans, Middle East, Persia, India and China. The active constituents of Opium are alkaloids, some 25 in number, of which Morphine and Codeine are the most important and active medicinally. Morphine was first isolated by Serturner in 1816; since then the other constituents have been separated and investigated. The use of Opium as a narcotic and analgesic dates from very early times. The only oral preparation of Opium now used to any great extent is the Tincture. The total alkaloids of Opium, as Papaveretum, and the principal individual alkaloids are used orally and by injection mainly for the relief of pain. The depressant and constipating effect of Morphine is a disadvantage and has led to much research to find more acceptable substitutes. Its habit-forming propensities have also led to a search for potent analgesics without such undesirable qualities. The search has not been unfruitful but Morphine and its parent Opium have, so far, maintained an important place in modern materia medica.

NOTICES

Beddard and Laidlaw Prizes

The closing date for entries will be Friday, 1st May. Would all those entering please forward the title and a short précis of their paper to the Secretary of the Pupils' Physical Society by this date.

Papers should take 12-15 minutes to read. The meeting at which they will be read will be held early in May.

59 Club

On March 13th last, forty-six persons attended the annual reunion dinner at " Ye Olde Cheshire Cheese." This is by far the best attendance to date, and one which we hope will be maintained, or even bettered, in the years to come. Our sincere thanks go to Chris Rowland for organising this bumper reunion.

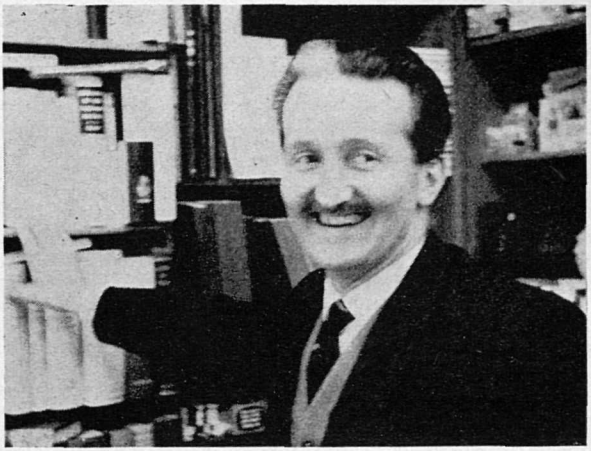
A resolution was passed almost unanimously at this dinner, to the effect that the reunion shall in future be held on the *first Saturday* in March every year, as many people found difficulty in arranging deputies for Friday evenings.

It was very pleasing to see so many old friends at the dinner, and especially those who had made a great effort in coming long distances to attend. We hope those unable to attend this year will not miss next year—the date is fixed, so mark off the first Saturday in March, 1965, as soon as the Drug Company sends your 1965 calendar.

M. J. S. Cox, *Hon. Sec.*

PROFILE

George Mitchell



Every community has a meeting place where business is transacted, news passed on and extra-curricular notices displayed. In bygone days it was at the village stocks or " pub ", but unfortunately at Guy's the availability of the "pub " is subject to the fluctuation in mood of its customers, so, one meets outside Smith's, the shop that lies like a myriad coloured jewel at the corner of the dull, unwelcoming park. It is only a mite in the vast Smith's empire, but at least they had the good sense to provide a canopy to protect rotating paperbacks during the day, whilst at night it shelters impatient suitors. Corgi toys to Tango, *The Nursing Times* or *Playboy,* all literary tastes are satisfied from the pious to the depraved, tutors to toddlers; one can even browse through tomes too expensive to buy, and paradoxically their best selling book, *Psychiatry Today,* isn't the most popular.

George Mitchell is the manager of Smith's and he fulfils this note to perfection. There is something about his presence that is incongruous with his surroundings, perhaps it is the suave flash of white hair or the moustache that reminds one of that proud group of men who rakishly wore it as their insignia. It was originally grown before he joined the R.A.F., it added maturity to his youthful face when he was officially too young to enlist.

George was trained as a navigator and bomb aimer in Ontario, where he grew to like the Canadians and their way of life, to return to England as a fully fledged aircrew member. He eventually flew in Lancasters and completed a tour of 28 flights, his philosophy being that the more efficiently he did his job, then the sooner the war would end. A failing aeroplane made him and his crew crash-land with a 4,000 lb. ultra sensitive bomb which had to remain aboard after several 1,000 pounders had been jettisoned in the Wash. It was a relatively uneventful landing, and the crew ran to the refuge of a nearby cottage where they spent the night drinking Scotch, given by the evacuated farmer, expecting that the bomb would explode and shatter the Norfolk peace at any moment.

Due to the kindness shown by Smith's to his family on the death of his brother, a Smith's employee and war casualty, George decided to join the organisation at the end of the war. He came to Guy's in 1953 and was pleased to accept this post, for he has always had a high opinion of the hospital. Although he enjoys reading, he is really a sporting man, having been a sprinter for Croydon Harriers, an amateur football player, and several years ago he organised and competed in the club's relay at H.O.P., where he helped to enable " Mitchell's Mob", the only staff team, to win this event. He still plays soccer for Guy's staff and arranges the fixtures for the Rugby Club. In 1962 he successfully completed the Brighton Walk.

It is unfortunate that he will soon have to leave Guy's, for his young family, all born at the hospital, is growing up, and he feels he will need a little more affluence to keep them as he would like to. Enabling him to sell tobacco would probably ensure his stay. It would be a loss to the hospital if he were to leave.

CORRESPONDENCE

Hospital Paintings

SIR, A number of your readers will have noticed that the modern paintings in New Guy's House have been removed. These paintings were very generously lent to us by the Nuffield Foundation from a collection intended to introduce original modern paintings into hospitals. The scheme is based on one started at the National Hospital, and the Nuffield Organisation have made a grant of £2,000 a year for five years to buy the paintings. Each year the whole collection is brought together at the National Hospital so that the hospitals taking part in the scheme may choose a new group.

I thought your readers might like to know that this year's exhibition has just been held, and it is hoped that the new group will shortly be available for display in different parts of the Hospital. Before this it is proposed to show them together for a week, and a notice about this will be circulated as soon as the arrangements have been made.

Yours etc.,
P. H. FLEMING,
Assistant Clerk to the Governors.

Counting House,
Guy's Hospital,
London, S.E.1.

NOTICES

Guy's Hospital Clubs' Union

In accordance with the requirements of Rule 24 of the Clubs' Union, NOTICE is hereby given that at the meeting of the Clubs' Union Council to be held on 24th April, 1964, the Council will be asked to confirm a resolution passed at their meeting on 1st November, 1963, that the Clubs' Union subscription should be increased from £9 9s. 0d. to £12 12s. 0d. per annum as from 1st October, 1964.

The proposal to increase the amount of the Clubs' Union subscription was made after careful consideration, and it was made necessary by rising running expenses, which cannot be met from the present fixed income of the Clubs' Union, and the need to provide money for repairs and improvements at the Ground.

J. C. GAZET,
Hon. Secretary,
Guy's Hospital Clubs' Union.

REVIEWS

OCULAR PATHOLOGY.

by C. H. Greer. Blackwell. First Edition. 1963. Pp. 222. *Price* 42*s*.

This book is eminently readable because it is well written and well set out. A book on ophthalmology should have coloured illustrations which are missing here. But obviously the planned scope, size and cost of publication must to a large extent dictate this point. The author states in his preface that it is a book for aspiring specialists, " for ophthalmologists and those training as ophthalmologists." It is in fact a limited selection of subjects, mostly controversial, in the speciality, and therefore to one already possessing a knowledge of the speciality stimulating interest and a desire to read further.

Of the subjects chosen some are dealt with too dogmatically. Thus there is an oversimplification of the pathology of circinate retinopathy, to take an example, where it is stated to be due to microglial macrophages loaded with lipid with no mention of direct albuminuric exudates and fatty acid breakdown deposits of other exudates.

One might quarrel, too, with the exclusion of other more fundamental ocular pathology such as that of papilloedema. The relatively protean subject of sarcoid also has little mention. While toxoplasmosis is treated with a surprisingly partisan ophthalmic approach.

Much more space is rightly given to ocular tumours, a pleasant and easily read section. But it was a shock to read the section on glaucoma, following on the excellently dealt with, complex subject of lens induced reactions, and perhaps a salutary lesson to the clinical ophthalmologist. This subject so grave and time-consuming to the clinician was dismissed in about four pages. Surely this underlines the paucity of information and material, often unavoidably lacking, given to the pathologist by the ophthalmologist.

The tendency to selection of subjects and a dogmatic approach is of more value to those undertaking a diploma rather than those interested in a fellowship, in the speciality.

Nevertheless I would recommend this book to ophthalmic residents, post-graduate students and specialists for much stimulating reading.

H. P. B. WHITTY.

THE EYE IN GENERAL PRACTICE.

by C. R. S. Jackson. Livingstone. Third Edition, 1964. Pp. 164. *Price* 25*s*.

This is the third edition of a book which, although written for the general practitioner, provides an excellent introduction to opthalmology for the student. Mr. Jackson aims at describing the common and dangerous eye diseases. This he does lucidly and interestingly and has managed to avoid even naming the rarer diseases and syndromes which, although interesting in themselves, are only confusing to the student. The treatment (by the G.P.) is dealt with well and simply but of course there are no descriptions of operative procedures. It is perhaps unfortunate that the use of a simple tonometer in the early diagnosis of glaucoma is not described as this could usefully be done by some more ambitious G.Ps. The addition of a short glossary of terms to this edition is useful.

It is unfortunate that the only grammatical error appears on the first page (the use of "strongly" as an adjective); at the bottom of page 146 there is a printer's error, probably the omission of a complete line of print.

The layout is pleasant and the illustrations are excellent although there could well be a few more illustrations of retinal lesions.

MICHAEL BARNETT.

DISEASES OF THE LIVER AND BILIARY SYSTEM,

by Sheila Sherlock. Third Edition. Blackwell Scientific Publications, 1963. Pp. 714. *Price* 70*s*.

When the first edition of Professor Sherlock's book appeared in 1955 it was received with enthusiasm and acclaim. It has become the standard textbook on liver diseases and it is not difficult to see why. The author's own original work in the field is well-known, and she has contributed much to the better understanding of this subject. She writes moreover with remarkable clarity and the result is a rare combination, an important, comprehensive textbook which is easy to read.

The third edition, containing eighty-three new figures and approximately a thousand new references is actually a few pages shorter than its predecessor published five years ago. This feat has been achieved by rewriting a good deal of the text, particularly where new knowledge has enabled speculative material to be omitted. A few errors of syntax have appeared and one photographic plate (in figure 67) has become inverted. The delightfully worded final paragraph in the preface to this edition perhaps indicates the source of these minor blemishes which, however, do not in any way detract from the excellence of the book.

The chapter on hepato-cellular failure has been partly rewritten and includes an important, up-to-date account of the management of ascites. The subject of portal hypertension and the portal venous system is covered fully, and this is (with the possible exception of a few formidable pages on hepatic blood flow) a very clear description of an interesting but difficult field. Jaundice is discussed according to the author's own helpful classification, and in this chapter the management of the problem case sounds a note of caution to the investigator in a hurry. The new account of drug induced liver injury is timely.

The material in this book covers such a wide field and is so clearly expressed that everyone interested in medicine at the post graduate level should be familiar with its contents. If the student finds that at seventy shillings the price precludes ownership he should certainly not fail to read it.

R. K. KNIGHT.

DIAGNOSIS AND TREATMENT OF BLOOD DISEASES

by M. C. G. Israels. First Edition. Heinemann, 1963. Pp. 204. *Price* 35*s*.

This book is designed for practising physicians and post-graduate students who wish to diagnose and treat their patients suffering from blood diseases by utilizing present-day diagnostic techniques and therapeutic methods. The book does not deal with anticoagulant treatment or serology; it is intended to provide the essential details required for day-to-day management and to obviate the need for referring to the standard textbooks of haematology and laboratory technique.

There are good descriptions of the common and uncommon blood disorders, including the reticuloses, and the coagulation disorders are explained clearly. Recommended treatments are up-to-date. The technique of splenic biopsy is described fully, and an interesting feature of the book is the description of splenic biopsy findings in relevant cases. But the chapter on technical methods is unbalanced and incomplete: for example there is no description of the Coombs test or E.S.R. Consequently any physician wishing to manage patients suffering from diseases of the blood in the way that the author suggests he should will need to refer to a laboratory manual more frequently than the author intends. The chapter could well have been omitted. There are 22 coloured illustrations of bone marrow changes in disease, nearly all from the author's " Atlas of Bone Marrow Pathology."

The book is of value for its description of blood diseases and their treatment, but the details of diagnostic tests are inadequate. It is a useful companion to the standard textbooks; and the practising physician will find in it the information he needs for day-to-day management of these disorders.

D. I. K. EVANS.

SPORT

On examining the season's records of the Hockey, Association Football and Rugby Football Clubs it may be seen that Guy's has enjoyed a highly successful run in the major sports so far this year. The Hockey and Soccer Clubs produced two formidable sides in the Inter-Hospitals Cup Competitions, and the Rugby Club were far from being disgraced in the semi-final of the Cup when they went under to the eventual winners of the Competition, St. Thomas's. With two major cups already won, it is to be hoped that more honours will be gained for Guy's this year. Every sporting Club at Guy's is at present more than capable of acquitting itself well in its own particular field, and this is due, not necessarily to an abundance of individual talent, but to really hard training and every performer devoting much time and effort to the Clubs concerned.

Perhaps the Soccer Club had the most talent at its disposal, and this it has put to good use by giving most opponents a lesson in the finer points of soccer. The Hockey and Rugby Clubs have gained such good records by sheer grit and determination, the Hockey Club's finest hour coming when they beat the St. Thomas' team containing players of International calibre to win the Inter-Hospital Cup. The Rugby Club has also gained several notable victories and has had one of the most successful seasons for some time, and in the daily Press recently the Hospital team in the seven-a-side competition was given credit when Rosslyn Park were quoted as " having one of the more difficult draws against Guy's."

Now that the goal posts have been taken down at H.O.P., of the Winter Clubs, only the Rugby Club remain in action, in the seven-a-side competitions. The nets have been erected and the Cricket Club has started regular practice in preparation for the coming season, the first match being played at H.O.P. on Saturday, April 25th, against Beckenham. The Club this year has lost two of its more seasoned performers, but has high hopes of winning the Inter-Hospitals Cup for the fifth time in six years.

RUGBY FOOTBALL

In the preliminary rounds of the Oxfordshire seven-a-sides, Guy's beat Cobham Park 8—5, and then fairly trounced Abingdon 26—0 to earn a place on the following Sunday in the final rounds of the Competition. Here they came up against a rather strong Rosslyn Park side and were beaten 23—6.

Team was: D. A. Biggs, A. J. Allen, J. A. Edgar, I. A. Baker, D. Hendrick, E. S. Price, R. Brown. R. Stansfield later replaced D. Hendrick, who was injured against Rosslyn Park.

The season's records of Junior XV's will appear in the next issue of the *Gazette*. We note with pleasure the election of A. Lloyd-Edwards as Captain of U.S. Portsmouth for the coming Rugby Football Season.

Reports and Results

RUGBY FOOTBALL

RETROSPECT, 1963-64

The First Fifteen

The past season, as regards the playing record and playing standards, has been satisfactory and better than for many years. The final record stands as:

P. 30, W. 10, D. 3, L. 17. Pts. F. 152, A. 307

The fifteen achieved a good degree of fitness early in the season and improved upon this as time went by. On only one occasion, against Cambridge University, did the side fail to match or surpass the stamina of the opposition. Team practice was well attended and profitable in many ways. Its value was perhaps most apparent in the linesout, where a well-knit unit, in which J. E. Davies, A. J. Kingdon and P. K. Peace played a major role, ensured clean possession against even some of the best players in the country. Handling was fairly sound and tackling in the backs was sure and hard and by C. J. Wright sometimes devastating. An item still unfortunately not fully realized is the value of obtaining quick possession of the loose ball. J. A. Edgar and A. M. Morris made a significant contribution to our successes with their penalty kicking.

The fifteen achieved its best performances against U.S. Portsmouth (6—3), Rosslyn Park (6—16), Streatham (14—6), Devonport Services (11—3), Aberavon (6—27) and London Welsh (3—15). Although some of these matches were lost, the rugby displayed in defeat was of a high

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Med. Ann D.C., 27, 405 (1958)

"This appears to be (the) drug of choice in combating the akathisia syndrome: 75% responded favourably and lost practically all the unpleasant symptoms that characterise this condition".
Dis. nerv. Syst., 21, 79 (1960)

...it proved a worthy addition to the therapy of Parkinsonism because it afforded relief to many patients who had failed to respond to other drugs".
Neurology (Minneap.), 7, 485 (1957)

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standard. The side went down to only one Old Boys' XV, gave Oxford University a noble challenge, drew with Coventry and Nuneaton and held Gloucester to three points. The Cup games raised their usual level of intensity. Bart's were defeated soundly if not brilliantly, but that was knock-out rugby. St. Thomas's the eventual winners, gained a forward ascendancy in the second half, against which few games are won.

Unfortunate lapses, particularly attributable to mental fatigue or the aftermath of Cup matches, occurred against Cheltenham, Plymouth, Old Askeans, Exeter and Metropolitan Police. Some, if not all, of these games could have been won. During the early experimental stage of the season, unduly large defeats were suffered at the hands of Cambridge City, Blackheath and London Irish. However, at no time were the side defeated by more than 29 points.

E. S Price and D. A. Biggs were regular representatives for United Hospitals and R. W. T. Myall, M. D. Murray and I. A. Baker also appeared. D. A. Biggs and P. K. Peace played for Kent and Sussex respectively, in their County Championship matches. J. A. Edgar also appeared for Eastern Counties.

In the first half of this past season we lost the services of M. D. Murray, who was the first fifteen's scrum-half for several seasons and played a major part in our Cup success in 1961. His hard work at the base of the scrum and his dogged covering in defence were notable features of his play. This season, as yet, we also lose D. A. Biggs. Biggs has been absent from his position on the first fifteen's wing on very few occasions. His hard running for the line, his tackling and good sense in defence have always been reliable. With his place kicking he made a considerable contribution to our 1961 Cup victory. His advice as Vice-Captain has been invaluable.

I. A. BAKER.

ASSOCIATION FOOTBALL

RETROSPECT, 1963-64

The club began the 1963-64 season determined to win at least one of the competitions that have eluded Guy's for the last few years. Training sessions were well attended, and the attitude towards the game seemed more serious than in the past.

Matches began earlier than usual and half a dozen games were played before the Winter Term started. The freshers' trial produced several promising players and this, together with the fact that all the previous year's side were available, made competition for both sides keen.

There was talk of running a third team, but with only one pitch and difficulty in using H.O.P. on Sundays, the idea did not materialise.

The selection of the first team needed a great deal of thought by the Captain, P. Davies. But it would appear that the right decisions were made and the moving of W. Davies to Centre-half paid great dividends.

The forward-line was greatly strengthened by the inclusion of inside-left, J. Powell-Jackson, who has fitted in well and worked hard all season.

This left a second team which would more than hold its own against many Hospital first teams and could certainly take over fixtures that have been first eleven games in the past.

The outstanding success has been of course the Hospitals' Cup win.

After a bye in the first round Guy's beat U.C.H. 4—0 and St. Thomas's 5—1 before meeting London in the final.

In the London game Guy's completely dominated their opponents and ran out easy winners by 6—1.

The club had a good run in the University Cup and were unlucky to meet Imperial College in the semi-final.

In the first round London Hospital were beaten 3—1. This was followed by a fine win over University College who were one of the strongest sides in the competition. Northern Poly. were then beaten 7—1 in the quarter-finals and Guy's went into the draw for the semi-finals. In a hard game Guy's held the Imperial side, which contained seven University Players, until halfway through the second half, when their centre-forward finally beat Parry. Imperial went on to win 2—0.

The Hospital League proved disappointing this season. Guy's had looked set to win this competition and up until Christmas had won all their games, conceding only one goal in the process. Unfortunately the approach of 2nd M.B. meant substantial team changes and a weakened side played badly against the Middlesex to draw 1—1 and then lost to George's, the eventual winners. Guy's finished second.

The second eleven have had a successful season and completely dominated their University League, coming top and winning promotion. Due to no error of their own they were ruled out of the Reserves Cup Competition, a frustrating blow, as they must have been favourites.

Friendly fixtures as usual provided many enjoyable games and here the club has gained much prestige. Reading and Birmingham Universities have both been beaten this season and as a result Guy's have been offered games with Liverpool, Bristol and Southampton.

Throughout the season Guy's players have provided the greater part of the United Hospitals' side. For the first time U.H. reached the Semi-final of the Argonaut trophy when they were knocked out by the winners, Icarus.

The matches for the Governor's Shield have been as enjoyable as always. This year the students won both games.

P. Davies has handled the captaincy extremely well this season and has been helped tremendously on the field by W. Davies who has hardly put a foot wrong all through. Parry has played as well as ever and saved Guy's on many occasions; he is to be congratulated on playing a large part in the Old Salopians winning of the Arthur Dunn Trophy this season.

The forward line, if never devastating, have played well together, J. Culter again scoring the majority of the goals, over sixty this season.

The Club is indeed fortunate in having a President and Vice-President who show such a keen interest in the teams efforts. Professor Hazlewood has been present at every major game this season.

We now look forward to next season when perhaps one of the other trophies can be added to the Hospitals' Cup.

ALAN ATKINS.

WATER POLO

Results of League Games.

Guy's v. N.C.L. Lost, 3—4.
Guy's v. I.C. Lost, 1—3.
Guy's v. St. Mary's. Won, 3—1.
Guy's v. U C. Won, 3—2.
Guy's v. Q.M.C. Won, 2—1.

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HOCKEY

RETROSPECT, 1963-64

In a season virtually free from interference from the weather the hockey club has thrived and enjoyed one of its best seasons for years.

The club were able to run five elevens for practically all the season; a very encouraging effort.

After some early experimenting in the forward line, the first eleven soon settled down into a well-balanced team with a strong experienced defence and forwards capable of scoring goals. The measure of the teams success can be seen from their record.

P. 31, W. 20, D. 8, L. 3. Goals F. 86, A. 31.

The winning of the Inter-Hospitals' Cup provided a fitting and well deserved climax for the team, with the Folkestone International Hockey Festival rounding the season off on a pleasant note.

T. Negus ably led the second eleven and by retaining the Junior Inter-Hospitals' Cup brought off a club double making Guy's the only Hospital ever to win both Cups in the one season. The second eleven concluded their season by participating in the enjoyable Paignton Hockey Festival over Easter.

The third, fourth and fifth elevens form the backbone of the Club and it is here that the various team captains have done a splendid job in maintaining club and team spirit. Special reference must be made to R. Hart, the captain of the fourth team, who has done a tremendous amount of work to bring credit to the club, notably in the series of games played against Peek Frean H.C. in which two paragraphs were devoted in their monthly magazine in praise of the sporting behaviour of the Guy's students.

Finally at the end of one season ones thoughts turn to the next and it is sad to record that many of the stalwarts of the club will have left. Notably R. Strickland, J. Sedgwick, R. Pearson and R. Hart; to them all the Hockey Club expresses its best wishes and thanks for services rendered.

DAVID LOADER.

Note: The club A.G.M. and Dinner will be held on Monday, 11th May.

BOAT CLUB

Reading Head of the River Race

The Reading Head of the River Race was held this year in pouring rain. The course is 3¼ miles long and 140 crews took part. The Guy's VIII started immediately behind St. Mary's, with a Reading B.C. crew and Lady Margaret just behind. Starting with frozen hands, Guy's kept the rate down, holding off the crew behind, but slowly making up on Mary's. In the third minute the rate went up to 32, and the voice of the Mary's cox was heard only a few feet away. Slowly Guy's drew level, tried to pass, but were held. For minutes neither crew could make an impression on the other, but Reading and Lady Margaret drew nearer.

The four crews entered the narrow cut by Rut Island in tight formation, with Guy's and Mary's a few feet in front of Reading, who were a few feet in front of Lady Margaret. Seeing the danger of collision, a little reserve strength was expended, and the crews shot into the open river again with Guy's a length up on Lady Margaret, and Reading another length behind. Mary's were level with Reading and slipping badly.

The Guy's crew dug their toes in, and it took Lady Margaret five minutes to draw up level. With one minute to go, with a flourish and a ringing of bells, they left Guy's behind. At the last bridge, Guy's made their last spurt, holding Lady Margaret to their one length lead, and the two crews left Reading well behind.

Guy's were the fastest Hospital crew, beating U.C. & H. London, Mary's and Bart's.

Putney Head of the River Race

The fastest three hundred and twenty crews in the country took part in the Putney Head of the River Race on the 21st March. The race is held over the reverse of the Boat Race Course, from Mortlake to Putney.

Guy's I went off at 34 on a rowing tide, ten seconds behind the crew in front. By Barnes bridge, Guy's were a length in front of this crew and chasing the next one. The rating dropped to 32. By Chiswick Eyot, Guy's were two lengths in front of the next crew, but feeling the pace a little. At Hammersmith, the crew cracked, and failed to make any further impression on the other crews before or behind, until the last minute down the barges at Putney, when some of the fire returned, and Guy's took two more lengths off the crew behind.

Although this was a rather disappointing effort, and Guy's were a few seconds slower than U.C. & H. and Bart's, we were nine places higher than last year's crew, finishing 160th. The crew was:—

Bow	R. Forrest.
2	C. Soutar.
3	N. Pinckney.
4	P. Ticehurst.
5	A. Hodgkison.
6	P. Telling
7	P. Burton.
Stroke	T. Peet.
Cox	C. A. C. Pickering.

That a crew containing three complete novices and averaging less than eleven stone can beat last year's crew is a tribute to the whole crew's enormous enthusiasm, and the equal enthusiasm and competence of their coach, D. Gurney. We should do well in the bumping races this year.

In the tradition of Guy's rowing, a Gentleman's VIII was mustered for the Head, who did their utmost to come last. They enjoyed a leisured and graceful row in the sun, but although overtaken by at least ten other crews, failed in their object. They came 292nd. Not a bad effort. They were:

Bow	P. Tennekoon
2	Substitute.
3	P. Venning.
4	P. Warren.
5	B. Fitzgerald.
6	M. Preece.
7	D. Cooper.
8	J. Keats.
Cox	S. Gregson.

C.A.S.

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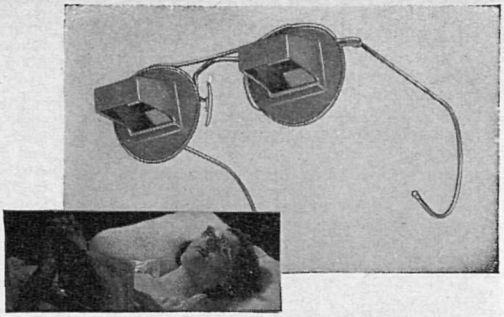

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HOSPITAL INFORMATION

APPOINTMENTS VACANT

GUY'S HOSPITAL, S.E.1.

Applications are invited for the post of **Senior Registrar in the Department of Ophthalmology** for the period 1st May to 30th September, 1964. Application forms are obtainable from, and should be lodged with, the Superintendent, Guy's Hospital, S.E.1., not later than **24th April, 1964.**

GUY'S HOSPITAL, S.E.1.

Applications are invited for the post of **locum middle-grade Registrar in the Department of Anaesthetics** with duties to commence as soon as possible and appointment to 30th September, 1964. Application forms are obtainable from and should be returned to the Superintendent, Guy's Hospital, S.E.1., not later than **24th April, 1964.**

GUY'S-MAUDSLEY NEUROSURGICAL UNIT

Applications are invited for the resident post of **Senior House Officer** for the six months commencing 1st June, 1964. The Unit, which is housed in the Maudsley Hospital, serves both Guy's Hospital and the Bethlem Royal Hospital and the Maudsley Hospital. Applications should be made by **25th April, 1964,** to L. H. W. Paine, House Governor and Secretary, Maudsley Hospital, Denmark Hill, S.E.5.

EVELINA CHILDREN'S HOSPITAL OF GUY'S HOSPITAL, SOUTHWARK BRIDGE ROAD, LONDON, S.E.1.

Applications are invited for the post of **Resident Paediatric House Officer** (with casualty duties) for six months from 1st June, 1964. The appointment is recognised for the D.C.H. and consists of four months medicine and two month's surgery. Candidates must be registered practitioners and should apply giving age, nationality, qualifications (with dates), and copies of three recent testimonials, to the Hospital Secretary by first post on **Friday, 8th May, 1964.**

HOUSE APPOINTMENTS

June 1st, 1964

Applications are invited for the following House Appointments at Guy's Hospital, due to begin on June 1st, 1964, applications giving choice of post and choice of Hospital, in order of preference, to be lodged with the Superintendent not later than Thursday, **April 30th, 1964.**

Assistant House Surgeons
Pre-registration 4

The appointment will be for six months, the first three to be spent as A.H.S. During the second three months of the appointment candidates will move either to the post of Casualty Officer (Surgical) or will remain as A.H.S.

These vacancies will normally be open to Pre-registration candidates applying for their first appointment and not to candidates seeking their second six months appointment.

Assistant House Physicians
Pre-registration 5

The appointment will be for six months, the first three to be spent as A.H.P. During the second three months of the appointment candidates will move either to the post of Casualty Officer (Medical) or will remain as A.H.P.

These vacancies will normally be open to Pre-registration candidates applying for their first appointment and not to candidates seeking their second six months appointment.

Casualty Officers
Pre-registration 6

House Surgeons
1 Pre-registration
1 Pre- or Post-registration 2

House Physicians
2 Pre-registration
1 Pre- or Post-registration 3

Resident Obstetrician
Post-registration 1
(To commence 1.7.64)

Throat and Ear House Surgeons
Pre- or Post-registration 1

Orthopaedic House Surgeons
Pre-registration 2

Genito-Urinary House Surgeon
Pre-registration 1
(2nd six months candidate only) or post-registration

House Surgeons to the Thoracic Unit
1 Pre- or Post-registration 2
1 S.H.O.

Children's House Physician
Pre-registration 1
(2nd six months only)

House Physician in Clinical Pathology
S.H.O. 1

R.M.O. in Nuffield House
S.H.O. 1

Resident Anaesthetists
Pre-registration 2
1 S.H.O.

The Medical Committee will also consider applications for posts at outer Hospitals as follows:—

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Pre-registration 1
House Surgeon
Pre-registration 1

JOYCE GREEN HOSPITAL

House Physician in General Medicine with some Dermatology (Married quarters may be available)
Pre-registration 1

LEWISHAM HOSPITAL

House Surgeon to Mr. Jemson
Pre-registration 1
House Physician to Dr. Roberts
Pre-registration 1

NEW CROSS HOSPITAL

House Physician
Pre-registration 1

ORPINGTON HOSPITAL

House Surgeon with Gynaecology
Pre-registration 1

House Surgeon with Ophthalmology
Pre-registration 1
House Surgeon with E.N.T.
Pre-registration 1
House Surgeon with Orthopaedic
Pre-registration 1
House Surgeon with Physical Medicine
Pre-registration 1

PEMBURY HOSPITAL

House Surgeons
Pre-registration 2

QUEEN MARY'S HOSPITAL, SIDCUP

House Surgeon
Pre-registration 1
House Physician
Pre-registration 1
(To commence 1.7.64)

ST. JOHN'S HOSPITAL, LEWISHAM

House Surgeon
Pre-registration 1
(To commence 11.6.64)

NOTICE FOR PRE-REGISTRATION CANDIDATES

Pre-registration candidates are reminded that the number of posts at Guy's is small compared with the number of students who are likely to qualify. Students applying at Guy's, therefore, are advised to consider applying for Pre-registration posts elsewhere at the same time, in order to avoid delay in obtaining a post. A number of recognised posts is available in the South-East Region. Details of posts in this region and elsewhere in the country are available in the Medical School Office.

Pre-registration candidates who have completed six months in Medical or Surgical posts are reminded that they must now apply for Surgical and Medical posts respectively. A candidate who has completed his first six months in a specialty (Surgical or Medical) may not do another six months in a specialty, but must seek a post in general medicine or general surgery as the case may be, according to G.M.C. regulations.

J. B. BLAIKLEY,
Superintendent.

AWARDS

GUY'S HOSPITAL MEDICAL SCHOOL

CHARLES FORSTER PRIZE IN CARDIOLOGY

February, 1964

G. A. Pettitt

BEANEY PRIZE IN PATHOLOGY

March, 1964

H. D. Tunstall-Pedoe—Prize
T. M. Jenkinson—Certificate

SANDS COX SCHOLARSHIP IN PHYSIOLOGY

March, 1964

G. J. Gibson

MICHAEL HARRIS PRIZE IN ANATOMY

March, 1964

R. L. M. Newell—Prize
Miss D. C. Phillips—Certificate

FREDERICK GEORGE LARKIN PRIZE IN MEDICINE

March, 1964

C. P. W. Warren—Prize
A. R. M. Upton—Certificate

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FINAL STATE EXAMINATION FOR NURSES, FEBRUARY, 1964

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Brooks, A.
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Buxton, R. M.
Carr, C. M.
Coney, G. V.
Cullinan, J.
Davis, J. M.
Dickson, G. A.
Evans, S. M.
Fairley, M.
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Gallantree, P. L.
Goatcher, S. A.
Harris, W. L. H.
Hazeltine, M. E.
Hepburn, L.
Husband, B. R.
Jackson, P. E.
Jones, B. M.
Latta, D. M. F.
Leighton, J. M. E.
Loasby, V. J.
Lown, M. E.
Lyle, E. A.
McMaking, M. H.
Maddison, S. M.
Mallison, M.
Manwaring, I. M.
Maurice, P. A.
Methven, R. C.
Ogston, H. J.
Richards, P. F. M.
Richards, R. D.
Richardson, J. M.
Shipman, C. A.
Stevens, P. J.
Sykes, C. B.
Taylor, S. M.
Till, J. M.
Wardrop, W. M.
Wilson, M. H.
Wilton, A. E.
Winslade, J. G.
Woodhead, D.

Correction: Contrary to the suggestion of the last issue of the Gazette, Dr. J. P. Lee-Potter has not acquired the qualification of D.L.O. As reported correctly, he has been awarded the D.T.M. & H.

NURSING NEWS

Left

Sister S. Waller from Cornelius.
Sister T. Wright from York Clinic.
Sister N. Younger from Caleb and Diplock.
Staff Nurse S. Morley from Casualty.
Staff Nurse M. Webster from Nuffield House.

PAPERS BY GUY'S MEN

In order to make this list as complete as possible, Guy's men whose papers have not been printed in this column are asked to send the Editor details of their publications.

Blackwell, B. Management of barbiturate overdosage in non-specialised units. *Brit. J. clin. Pract.*, 1964, **18**, 135.

Butterfield, W. J. H. Summary of results of the Bedford Diabetes Survey. *Proc. R. Soc. Med.*, 1964, **57**, 196.

Complans, M. P. and another. Nasal breathing and the dental pack. *Brit. dent. J.*, 1964, **116**, 209.

French, E. B. and another. Anterior tibial pain. *Brit. med. J.*, 1962, ii, 1290.

French, E. B. and another. Biliary and renal colic. *Brit. med. J.*, 1963, ii, 135.

French, E. B. and another. Effect of anode and cathode polarising currents on blood flow in the hand. *Clin. Sci.*, 1963, **25**, 399.

Hamilton-Miller, J. M. T. and Smith, J. T. Inhibition of penicillinase from gram positive and gram negative bacteria by substrate analogues. *Nature*, 1964, **201**, 999.

Hamilton-Miller, J. M. T., Smith, J. T. and Knox, R. Potentiation of penicillin action by inhibition of penicillinase. *Nature*, 1964, **201**, 867.

Harrison, D. F. N. Familial haemorrhagic telangiectasia. *Quart. J. Med.*, 1964, **33**, 25.

Hayward, J. L. Steroid excretion in early breast cancer. *Brit. J. Surg.* 1964, **51**, 224.

Keen, H. The Bedford Survey; a critique of methods and findings. *Proc. R. Soc. Med.*, 1964, **57**, 200

Kendall, P. H. and another. Spontaneous haemarthrosis of the shoulder joint. *Ann. phys. Med.*, 1964, **7**, 180.

Luder, J. The infant at risk. *Nurs. Mir.*, 1964 **117**, iii.

McCormack, J. Porcelain bonded to precious metal castings. *Brit. dent. J.*, 1964, **116**, 213.

Oliver, L. Regional manifestations of tumours of the brain. *Brit. J. clin. Pract.*, 1964, **18**, 151.

Ross, B. A. Pyrexia after heart surgery due to virus infection transmitted by blood transfusion. *Thorax*, 1964, **19**, 159.

Sanders, M. D. and Falconer, M. A. Optic nerve compression by an intracanalicular meningioma. *Brit. J. Ophth.*, 1964, **48**, 13.

Stamm, T. T. Colles fracture. *Nurs. Times.*, 1964, **60**, 179.

Tombleson, P. M. J. and another. Two cases of acute idiopathic circumscribed gangrene. *Postgrad. med. J.*, 1963, **39**, 662.

Tomkinson, J. S. Domiciliary obstetrics. *Proc. R. Soc. Med.*, 1964, **57**, 219.

Wells, R. S. Relaxin in the treatment of localised scleroderma. *Trans. St. Johns Hosp. derm. Soc.*, 1963, **49**, 149.

Wells, R. S. Male-type alopecia, alopecia areata and normal hair in women. *Arch. Derm.*, 1964, **89**, 95.

Winstanley, D. P. and another. Glaucoma and elliptocytosis. *Brit. J. Ophth.*, 1964, **48**, 7.

Wright, P. H. and others. Hepatic enzyme activities in rats made diabetic with alloxan and with guinea pig anti-serum. *Diabetes*, 1964, **13**, 28.

PERSONAL

Special rates for Guy's Staff, Students, Nurses and Subscribers to the Gazette. 5 words 10s. 6d. 15 words 21s. 0d. Box Numbers 1s. extra.

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CHANGES OF ADDRESS

Dr. Clive Barrett, 6, Glebe Court, Fair Oak, Hampshire.

Dr S. Bockner, 86, Harley Street, W.1. Langham 4750.

Dr. and Mrs. P. S. Greaves, Hazeleigh Lodge, Woodham Mortimer, Maldon, Essex.

G. A. Kerr, M.R.C.S., L.D.S., Janoway, 28, Great North Road, Brookemans Park, Hatfield, Herts. Potters Bar. 55303.

Dr. and Mrs. J. K. Smallshaw, Cornerway, as from 29.5.64 Park Road, Banstead.

BIRTHS

BARRETT.—To Letty and Clive Barrett, on 4th April, 1964, at Winchester, a son, Timothy Clive, a brother for Guy Russell.

BOLGER.—On January 30th, 1964, at the Stella Maris Nursing Home, Dublin, to Deirdre (née Boland, S.R.N.) and David Bolger, of Ardnamara, Courtown H.B., Co. Wexword, a second son, Diarmuid Joseph.

CLARK —On February 20th, 1964, to Margaret (née Stewart) and Dr. Roy Malcolm Clark, their first child, a son, in Portland, Oregon, U.S.A., Graham Stewart.

COCKERILL.—On February 16th, 1964, to Doreen (née Howell) and Richard Cockerill, M.B., a daughter, Joanna Mary.

DILLISTONE.—On March 2nd, at Barton-on-Sea, Maternity Hospital, Hants., to Jean Lucy (née Popert, S.R.N.) and David Dillistone, a daughter, Nell, sister for Ben.

ELSDON-DEW.—On February 8th, at Nuffield House, to Mary and Robin Elsdon-Dew, a daughter, Katherine, a sister for Mark and Jane.

FIELD.—To Christine (née Osman, S.R.N.) and Ian Field, M.B., B.S., on February 4th, 1964, a son, Giles Edmund, a brother for Hugh Michael.

HACKWOOD.—On March 4th, 1964, at Farnborough Hospital, Kent, to Jill (née Holmes, S.R.N.) and Dr. J. Hackwood, a son, Michael Duncan, a brother for Russell.

HOLMES.—To Margaret Anna (née Harrison, S.R.N., S.C.M.) and Gordon Holmes on March 5th, at Seaview I.W., a son (Rupert).

LESSOF.—On February 18th, 1964, to Leila (née Liebster) and Maurice Lessof, a daughter, Susan Jane, a sister for Nicholas.

MORGAN.—On February 4th, at St. Mary's Hospital, Portsmouth, to Julie (née Evans) and David Morgan, a daughter, Emma Katherine.

RALLINGS.—On December 6th, 1963, to Brenda (née Minter) and Michael Rallings, M.B., B.S., a son, Andrew James, brother for Peter John.

THOMAS.—To Gigi and Glyn Thomas, on 15th December, 1963, a son, Martin.

VARNEY—BURCH.—To Norma and Michael Varney-Burch, a son Guy, on March 20th, 1964, at the Hainault Hospital, Erith, Kent.

WILDER.—On 15th January, 1964, at the Royal Northern Hospital, London, to Joan (née Mitchell. A.R.M.C.M.) and Leonard Wilder, B.D.S., a daughter, Andrea Frances.

WILLARD.—On 2nd February, 1964, to Valerie (née Poulton) and P. J. Willard, B.D.S., a son, David John, a brother for Simon and Nicholas.

WOLFLE.—On February 1st, 1964, at Cuckfield Hospital, to Eileen (née Davidson, M.C.S.P.) and John Wolfle, M.B., B.S., F.D.S., a son, Andrew Donald, brother for Paul.

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GUY'S HOSPITAL GAZETTE

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Editors *T. C. Davis*
B. H. Hicks

Sports Correspondent *N. J. Knott*

Guy's Hospital, London

PASSIM

Take-in Again

The revised take-in system has now been in operation for some months and we can try to assess its success. Certainly many more patients have been admitted into the wards and from this point of view it must immediately justify itself. There are, however, several points worth quibbling about. The nursing staff, particularly the juniors, are unhappy because they do not like seeing patients whom they have nursed, tidied and fussed over in the acute stages of their illnesses being spirited away after three or fours days of intense care, to another ward and world. This, naturally, is disliked by most of the patients as well. Students feel that they are used more than ever before as accessory and useful laboratory assistants. Often they are bleeped some hours after the patient has been admitted, just in time to take blood for a routine picture before the patient can nod to sleep. This is not necessarily a fault of the system; we recognize that housemen, not knowing the firm they are working with, are not so inclined to include students in the details of the initial treatment and management of acutely ill people. But this was always one of the most important and invigorating aspects of take-in. Similarly registrars each night, not knowing the firm, will have difficulty in knowing the level to teach at, let alone in forming any rapport with the students. Nonetheless, it is both novel and stimulating to be taught by all the registrars. Registrars and housemen are also relieved of a prolonged and anxious week and for them life is more ordered and easy. Obviously then, most dissatisfaction comes from the student body, but Guy's is a teaching hospital.

On the medical side, with five firms, probably the only alternative is to have students and staff alike on take-in for one day only, or for them to continue as they are now. On the surgical side they could revert to the old system. Obviously, the view we have presented will be to some extent biased but it is a complex problem and we know it is impossible to please everyone. The *Gazette* could offer a forum for ideas if people from all stratas would let us know their opinions and feelings. The information yielded could be sifted and some rational answers to the problems given.

The *Gazette* has, over the past year, changed in both its format and presentation. It has also grown larger. We think that the change has been for the better but, unfortunately, this and the increased contents have cost more money than had been anticipated. To offset this we are forced to cut down the amount of text matter for the next few months. We are sorry that this has happened and hope that the "thinner" *Gazette* will only be temporary.

At a recent meeting the *Gazette* committee regretfully accepted the resignation of Eric Tiller as Sports Correspondent. He has managed, with his usual gusto, to produce editorials and reports which not only sprung from the print but also which appeared on time. It is largely due to him that the Sports column is now so widely read. At the same meeting the committee appointed Nigel Knott as the new Sports Correspondent.

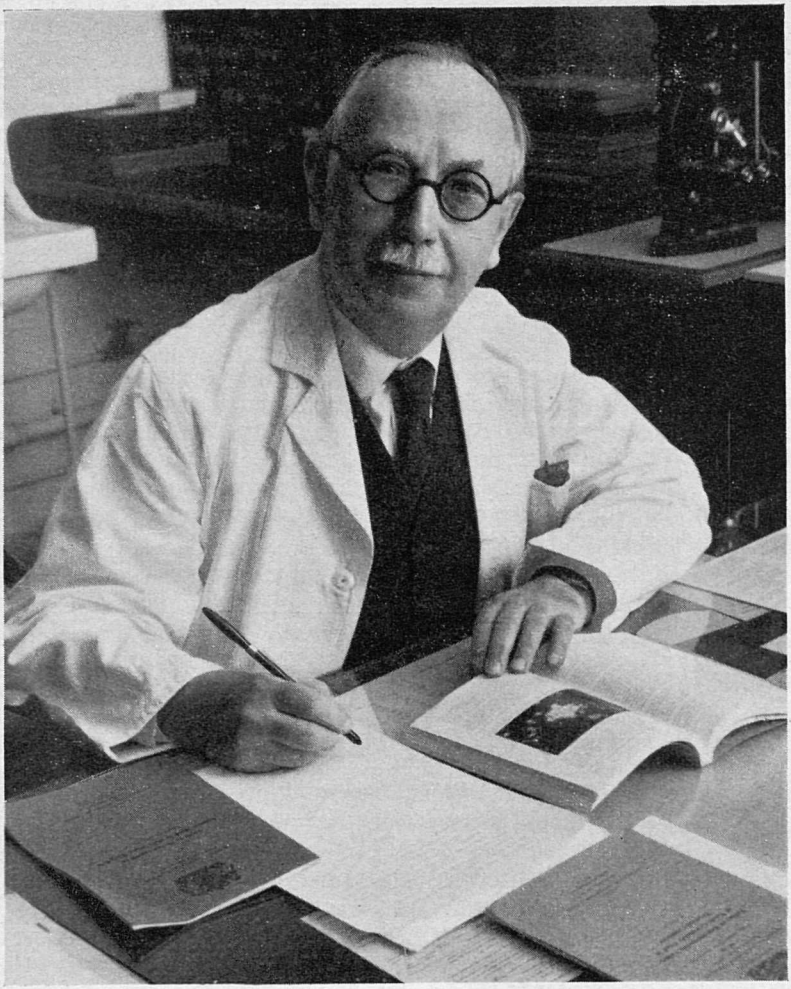
We offer our congratulations to Dr. D. S. Robertson on his appointment as Consultant Anaesthetist to the United Sheffield Hospitals.

It is sad to have to record the death of Miss Gwendoline Bristow, who was Sister in charge of the Electrical and Radiography School in 1916. She eventually became principal of the Middlesex Hospital School of Physiotherapy in 1945. Although her life was divided between Guy's and the Middlesex, she always maintained a great interest in the Nurses' League and the Physiotherapy and Radiography Association of Guy's Hospital.

GUY'S DIARY

MAY

EXHIBITION.			*Obstructive Jaundice.*
4th	M.	4.30	Professor HUNT. Applied Physiology Lecture. *General Principles in the Interpretation of Tests of Gastric Function.*
5th	T.	1.00	Dr. KENDALL. Clinical Lecture. *Corticosteroid Treatment of Rheumatical Arthritis.*
7th	Th.	1.00	Mr. GLOVER. Clinical Lecture.
7th	Th.	1.00	Dr. B. G. SARNAT Dental Clinical Lecture. Dental Theatre. *The Growing Face; Current Surgical Concepts.*
8th	F.	1.00	Dr. SCOTT. Clinical Lecture. *"No Smoking."*
11th	M.	4.30	Dr. TROUNCE. Applied Physiology Lecture. *Patterns of Renal Failure.*
12th	T.	1.00	Mr. KILPATRICK. Clinical Lecture.
14th	Th.	1.00	Dr. M. C. JOSEPH. Clinical Lecture. *The Newborn.*
15th	F.	1.00	Dr. TROUNCE. Clinical Lecture. *The Clinical use of Diuretics.*
25th	M.	1.00	Dr. FLEMINGER. Clinical Lecture.
26th	T.	1.00	Dr. MOYNAHAN. Clinical Lecture.
26th	T.	4.30	*Films of General Interest.*
28th	Th.	1.00	Dr. MACKENZIE. Clinical Lecture.



Professor G. Payling Wright,

D.M., F.R.C.P.

An Appreciation.

THE sudden death of Professor Payling Wright on his sixty-sixth birthday, only six months after his retirement, has come as a shock to his wide circle of friends and colleagues. He had held the Sir William Dunn Chair of Pathology and the post of Consultant Pathologist to the Hospital for nearly thirty years, had been a staunch friend and a much-valued teacher and adviser of many Guy's men, and will be remembered with real gratitude by a large number of pathologists both in this country and abroad.

He was educated at University College School and at Exeter College, Oxford, where he had been awarded an Open Scholarship in 1915. In that year, however, he entered the Army and served as a gunner in France. He returned to Oxford in 1919, and was awarded a First Class in the Final Honour School of Animal Physiology in 1921. After carrying out his clinical studies at U.C.H. Medical School he was awarded a Rockefeller Travelling Fellowship and spent a year at Washington University, St. Louis. In 1928 he was awarded a Research Fellowship at Harvard Medical School and worked for three years in association with E. J. Cohn in the Department of Physical Chemistry of the Laboratories of Physiology. On his return to University College Hospital he was appointed Lecturer in Morbid Anatomy, Curator of the Museum and Pathologist to the Hospital. He remained there until 1934 when he came to Guy's to take up the Sir William Dunn Chair.

Perhaps the most striking characteristic of his active and scholarly mind was the combination of a broad interest in pathology, and indeed in medicine as a whole, with a strong sense of scientific accuracy; this, coupled with his far-ranging imagination and his friendly and encouraging attitude to any young man who was anxious to learn, led to the establishment within his Department of a school of experimental pathology which had an international reputation.

His published work bears witness to the wide range of problems that interested him. His early studies while at Harvard (1928-1931) were concerned in part with the influence of liver extract and other factors on the development of the erythrocyte, and he was one of the first to show that liver extract acts in pernicious anaemia by promoting the subsequent maturation from the megaloblastic phase of erythropoiesis. While he was there he also collaborated with Price-Jones and Dill in a study of the concentration of haemoglobin in normal human blood, involving a comparison of the van Slyke method of determining the oxygen capacity of the blood with Haldane's ferricyanide method.

During the Second World War he was appointed a member of the Medical Research Council's Committee on Haemoglobin Surveys (1943) which was set up in order to obtain evidence as to the nutritional status of the people of Great Britain after four years of war. The work on which the Report of the Committee was based included measurements of the haemoglobin level in about 13,000 adults and 3,000 children; all the observations were carried out using the Haldane-Gowers method, which had recently been standardized by the British Standards Institution, Payling Wright, together with Donaldson and

Harding, being responsible for establishing the B.S.I. Haldane Colour Standard.

In his long experience Payling Wright was also keenly interested in bacteriological, immunological and epidemiological problems. In 1939, in collaboration with D'Arcy Hart, he wrote a report on "Tuberculosis and Social Conditions in England". This was a careful study of the social pathology of tuberculosis and is often quoted as an authoritative review of the problem of tuberculosis in the days before chemotherapy. His interest in the disease extended to the tubercle bacillus itself and he collaborated with the Emergency Public Health Laboratory Service in a survey of non-pulmonary tuberculosis and a study of the frequency with which the bovine bacillus could be isolated.

He and his wife were deeply interested in the social aspects of other infectious diseases and several papers were produced on this general theme—on the influence of social conditions upon diphtheria, measles, tuberculosis and whooping-cough in early childhood, on aetiological factors in broncho-pneumonia amongst infants, and on diarrhoea and enteritis amongst infants in the London area.

But though he found bacteria fascinating, he was even more interested in the reaction of the invaded host. In a masterly article in the Bulletin of War Medicine (1942) entitled "Toxic Factors in Wound Infections" he pointed out that surprisingly little interest had been taken in the ways in which toxins act on the itssues of an infected animal. He also observed that in studies that had been carried out in this field the conditions used had often been highly artificial and bore no relation to the delicate equilibrium which must be set up or upset when bacteria or their toxins exert their effects on the naturally infected host.

From this point on he became increasingly interested in comparing the effects of different bacterial toxins on different parts of the body, and in his later years he concentrated more and more on the neurotoxins and neuroviruses.

In 1955 his interest in the pathology of the nervous system led him on to a study of the problems of demyelination. A fundamental question to be answered before we can profitably begin to consider the mechanism of the break-up of the myelin sheaths in multiple sclerosis and the other demyelinating diseases, is whether the myelin requires to be constantly maintained and renewed, or whether, once it has been laid down round a nerve fibre, it remains as a metabolically inert but stable structure. Payling Wright and his colleagues set out to answer this question; and from many elegant and long-term experiments designed to measure the persistence of isotopically labelled lipids in the central nervous system, they were able to conclude that the lipids of the myelin sheaths are metabolically stable. The results of this work have provided a firmer basis for many subsequent studies both in this country and abroad on the mechanism of demyelination.

Throughout his career his research activities have been characterized by his ability to apply to the problems that engaged his attention the broad perspectives of physiology and biochemistry. He

invariably saw the problem in its entirety, and was not restricted to the classical orthodox outlook of the morbid anatomist. He was an experimentalist with great technical ability and an imagination that led him often to make use of only recently introduced techniques; he was, for example, one of the first pathologists to use radioactive isotopes, and as early as 1928 he had written, together with F. W. Rogers Brambell, the chapter on tissue culture in Bolles Lee's "Microtomist's Vade-Mecum".

Payling Wright was also a great teacher, with a keen realization of the need for post-graduate as well as undergraduate instruction. Students, post-graduate workers and more senior colleagues alike were assured of a warm welcome, when they went to him, as many did, with their problems. Though always engaged in one or another of his many interests, he invariably managed to find time to give his visitors his undivided attention and thoughtful and detailed help.

He had, in addition, real administrative ability. He had clear-cut and well-thought-out views concerning the organization of pathology in medical schools, and he was largely responsible for the building of the new pathology block, which was opened in 1938, and also for the striking expansion and development of the subject in all its branches at Guy's.

His opinion was much valued by many both at Guy's and in the world outside, and in his later years his advice and help were sought by many bodies, both national and international. He served as a member of the Medical Research Council from 1955-1960, and was Vice-Chairman of the Council of the Imperial Cancer Research Fund. He was Chairman of a planning group set up to advise on the establishment of the Institute of Comparative Medicine which was founded in 1960 at the London Zoo with a large grant from the Nuffield Foundation. In 1953-1954 he served as President of the Section of Pathology at the Royal Society of Medicine, and for many years was a member of the Finance and General Purposes Committee of that Society. He was also a member of the Scientific Advisory Committee of the Fleming Memorial Fund, and was invited on several occasions to take part in the work of various committees of the World Health Organization. He played a leading part in the founding of the British Society for Immunology, and of its Journal.

Those who knew Payling Wright well found in him a fascinating mixture of the simple and the complex. In public and in committees he could be effective, reasonable and far-sighted. But he could also be forthright in his views and in his ways of expressing them, and if he felt strongly that a principle in which he believed was at stake he could be uncompromising in fighting for it. If, as often happened, he felt that he was in the minority, and sometimes alone, he could be abrupt and outspoken. This sometimes antagonized those who disagreed with him, though often they recognized later that he had been right.

In private and among friends, he was quite different. A man with definite ideas and high ideals, he tolerated neither fools nor knaves easily, nor could he lower the high standards, both intellectual

and ethical, which he set himself. But in his heart, he had the simplicity of true greatness. He never sought power for himself. Material and social prizes meant nothing to him and he was quite lacking in personal ambition.

His place in medicine and pathology is assured. The influence of his personality and ideas has spread widely at Guy's and outside it, at home and abroad, especially in the United States. This, together with the sense of personal loss which has united all his friends on the news of his death, is a measure of his greatness.

There will be a Memorial Service for Professor Payling Wright in Southwark Cathedral on Tuesday, May 26th, at 12.15 p.m., the Chapel of Guy's being unavailable owing to rebuilding.

NOTICES

Pupils' Physical Society

BEDDARD AND LAIDLAW PRIZE MEETING.

The Beddard Prize, value £5, is awarded for the best presentation of a case-history by a student before the Pupils' Physical Society, the Laidlaw Prize, of the same value, for the best paper on any topic of general medical or surgical interest.

Entries consisting of the title of the contribution and a very short summary should have reached the Secretary by May 1st.

On May 5th, at 5.30 p.m., in the Demonstration Room of New Guy's House, a panel consisting of Mr. P. S. Boulter, Dr. R. K. Knight and Dr. G. A. K. Missen will adjudicate at the presentation of the case-histories and papers, and will award the prizes.

Those taking part are reminded that each contribution should take less than 15 minutes and that particular credit will be given for succinctness.

You are encouraged either to read a paper or to come and listen.

ANNUAL ADDRESS.

The Annual Address to the Society for 1964 will be given by Mr. Roy Calne, M.S., F.R.C.S., on "Tissue Transplantation." The meeting will take place at 5.30 p.m. on Tuesday, May 12th, in the Physiology Theatre.

The meeting promises to be of both theoretical and clinical interest. Anyone interested will be welcome.

Art Society

Guildford Cathedral will be visited by the Art Society on Wednesday afternoon, 20th May. Anyone working at Guy's is very welcome to join the outing, which will proceed to Albury Park afterwards, time permitting. All details will be posted on the Art Society's notice board (behind Smith's). It is hoped that the journey will be made in cars.

JENNIFER TOWNSEND (*Hon. Sec.*)

The Management of Dysmenorrhoea in General Practice

by PHILIP HOPKINS

Menstruation is a physiological process which, theoretically, should be painless. Nevertheless, such a high incidence of women experience some degree of lower abdominal discomfort that this must be accepted as normal, the term dysmenorrhoea being reserved for pain that is so severe that the patient is incapacitated.

Like so many diagnostic terms commonly used in medical practice, dysmenorrhoea is a symptom and not a disease.

Incidence

The reported incidence of dysmenorrhoea varies not only with different writers, but also according to the different groups of women investigated. Clow (1924) reported that 3.6% of college students and 3% of school girls suffered from disabling dysmenorrhoea. An analysis of 4,500 consecutive gynaecological out-patients showed 2.8% to have dysmenorrhoea (Emge, 1933). Davis (1938) estimated that from 1% to 5% of all young women were confined to bed for one or more days each month due to dysmenorrhoea. In another survey (Hamblen, 1945) reported that between 6 and 12% of women college students suffered from dysmenorrhoea.

In a review of the literature (Baetjer, 1946) it was found that less than 10% of women employees suffered sufficiently from dysmenorrhoea as to lose time from work. Nevertheless, the time-loss in industry from this cause was estimated to be 2·5 days per 100 women employees each month. Another survey showed that 23% of women serving in the A.T.S. complained of dysmenorrhoea sufficiently severe to interfere with their routine duties (Drillien, 1946). Bishop (1952) reported that questionnaires sent to the nursing staffs of Guy's Hospital and the Chelsea Hospital for Women and the R.A.F. revealed that 16.5% of 472 nurses complained at some time of incapacitating dysmenorrhoea. Further analysis of the figures showed that dysmenorrhoea occurred in 25.6% of those women who also stated that they had irregular cycles, compared with 15% of those with regular cycles.

Nixon (1956) reported that approximately 10% of all gynaecological out-patients had dysmenorrhoea. In my practice a study showed that out of 178 consecutive patients with gynaecological symptoms 19 complained of disabling dysmenorrhoea (i.e. 10.7%); of whom only 4 were married. In addition only one woman in this series experienced moderately severe "mittelschmerz" (Hopkins, 1959a).

Aetiology

Dysmenorrhoea has been classified in various ways but the simplest is to divide it into:—

(1) primary (functional, spasmodic, idiopathic) and
(2) secondary (congestive).

In primary dysmenorrhoea the pain is usually severe for the first twelve hours of the period and may sometimes occur a short time before the bleeding actually starts.

Patients with secondary dysmenorrhoea frequently complain of pain in the back as well as in the lower abdomen for two or three days before the onset of the period and the pain may be relieved by the bleeding. Secondary dysmenorrhoea may result from inflammatory disease in the pelvis, uterine tumours (usually fibroids), endometriosis and rarely, congenital defects.

It is therefore essential that treatment should not be directed to the alleviation of the symptom of dysmenorrhoea but first the underlying cause must be discovered.

In practice the majority of patients suffering from dysmenorrhoea are in their 'teens or early twenties and the dysmenorrhoea is primary. It is rare to find a physical cause whereas it is common to find positive evidence of some form of emotional disturbance. This is hardly surprising since it is widely recognised that menstrual disorders are commonly related to emotional disturbance, as supported by Bryson (1945), who reported that 2,500 out of a total of 4,000 seen in gynaecological practice required some psychological understanding in their treatment and she commented that had this not been available very many of them could not have been helped at all.

In his monograph "Of the Management Proper at the Cessation of the Menses", John Fothergill (1779) wrote: "A woman enjoying very good health, sometimes is siezed with total suppression of the menses, much sooner than they ought to disappear. . . . A fever, surprise, anxiety, sudden and violent cold, especially if it happens all the time, will put a total stop to the discharge." In this elegant description the recognition of the relationship between anxiety and amenorrhoea is evident.

More recently, Blaikley (1949) reported nine patients with menorrhagia psychogenica, in each of whom the bleeding was shown to have followed directly on emotionally disturbing experiences. I was able to describe 17 women with menorrhagia psychogenica (Hopkins, 1959b) at a symposium on menorrhagia, held by the Society for Psychosomatic Research. Many more such cases have been reported in the literature.

When working in the Department of Psychological Medicine at Guy's Hospital, O'Neill (1950) found that a number of women whose children had been referred to him with various recurrent disorders such as headache and abdominal pain, had a high incidence of certain gynaecological symptoms. Subsequently, at the suggestion of Dr. H. St. H. Vertue, the group of symptoms: frigidity, dyspareunia, dysmenorrhoea, irregular menstruation, amenorrhoea, menorrhagia, abortion

or miscarriage, vomiting in pregnancy, difficult labour, depression or illness in the puerperium and failure of lactation, were collectively named the "Atalanta Syndrome", after the Arcadian who competed so successfully with men. In a careful study of 40 women with these symptoms, compared with another group of 40 women as controls it was clearly shown that the incidence of these symptoms is much higher when adaptive disorders exist. Anxiety was present in all in the group studied with Atalanta symptoms and was absent, or slight, in the control group.

Wittower (1940) found that patients with primary dysmenorrhoea could be divided into two main groups:—

(1) Women showing masculine characteristics both in their demeanour and in their ambitions and tastes. They manifestly resented and rejected the female rôle. To them their menstrual functions were a nuisance, a handicap which they found difficult to accept.

(2) Women who tended to be small, lightly built and whose personality was shy, timid and seclusive or hypochondriacal. An outstanding feature of this group as a whole was their physical and emotional immaturity.

A woman's reaction to her reproductive functions must necessarily be closely related to her personality and will be all the more readily disturbed by psychological or emotional difficulties, as Helene Deutsch (1947) has clearly shown in her comprehensive survey of this subject.

Diagnosis

The diagnosis of dysmenorrhoea is complete only when the underlying causation has been found. A full history is essential and it is my practice to see such patients by appointment ; i.e. outside the surgery hours which do not usually allow sufficient time for full history taking and the careful general examination that must follow. In all patients with gynaecological symptoms a thorough pelvic (bi-manual) examination must be made and a good view of the cervix through the speculum must be obtained in addition to the general examination. The student should take every opportunity of carrying out these special examinations so that he can confidently decide whether the pelvic organs are normal or not, or whether referral for a consultant gynaecological opinion may be required.

In the majority of patients with primary dysmenorrhoea no physical abnormality will be found, although there may well be a number of other symptoms such as fatigue, headache, dizziness, nausea and sometimes vomiting, indigestion, backache, fainting, depression or anxiety, irritability and insomnia.

The total clinical picture is that of a woman suffering from an anxiety or depressive state with a history of emotional disturbance, the complaint of incapacitating period pain and with the absence of any physical abnormality.

Mittelschmerz

Mittelschmerz is the term applied to pain occurring on either side of the lower abdomen midway between successive menstrual cycles.

It is thought to be due to a little bleeding into the peritonial cavity at the time of ovulation. The pain varies from mild discomfort to severe abdominal pain which occasionally produces a crisis simulating an acute abdomen. The history usually is straightforward and, with expectant treatment, recovery is the rule.

Treatment

As with all other symptoms the treatment of dysmenorrhoea is the treatment of its underlying cause whether this is physical or psychological.

When the relatively uncommon secondary dysmenorrhoea is diagnosed the most likely cause will be the presence of a uterine tumour, usually a sub-mucous fibroid in the lower segment, and frequently encroaching upon the inner os. Less commonly inflammatory pelvic disease, malignant disease, and very rarely such conditions as "pinhole os", or other congenital abnormalities may be found. In all these cases referral for consultant gynaecological opinion is indicated.

The diagnosis in the remainder of patients is primary dysmenorrhoea, the cause being a disturbance of the emotional state.

The earlier treatment is started the better. Every opportunity should be taken to treat girls when they start dysmenorrhoea so that a healthy attitude to their menstrual (and sexual) functions may be encouraged. Frequently parental influences must be countered so that faulty education may be corrected and the use of such terms as "the curse" and "being unwell with the monthly" should be strongly discouraged.

It is common to find that girls with dysmenorrhoea have mothers who suffered in their own earlier years in the same way, so that it is customary for the tradition of painful periods to be passed down from one generation to the next.

The large number of remedies claimed for the treatment of dysmenorrhoea reveals the state of confusion that still exists about it.

The management of dysmenorrhoea may be divided into :—

(1) psychotherapy and
(2) physical methods.

(1) Psychotherapy

Frequently, simple re-education and instruction in the normal physiology of menstruation and reproduction, together with even superficial psychotherapy, and a sympathetic and understanding approach, used early enough, will help most girls with dysmenorrhoea to a considerable extent.

In older patients, however, deeper psychotherapy may be required. A discussion of the patient's attitudes to her reproductive functions is frequently helpful; in the case of married women with dysmenorrhoea discussion of their marital relationships is frequently of value, while in single women discussion of their sexual activities is often benefical.

For a fuller understanding of these problems some knowledge of the underlying psychopathology is required and some idea of this is

to be found in the text book "Psychosomatic Medicine", by Weiss and English (1957), a book which should be read by every medical student.

Where there is extensive personality disturbance or deep-seated neurotic conflicts, referral to a consultant psychiatrist may be indicated.

(2) Physical Methods

Frequently it is necessary to combine the prescribing of simple sedatives and/or analgesics with psychotherapy. It is useful to prescribe a course of a sedative such as Amylobarbitone ½ gr. b.i.d. or t.i.d. for four or five days before the expected onset of the period and to continue them for the first two or three days of the period. Sodii Amytal gr. 1 or Parabal gr. 1 b.i.d. or t.i.d. may also be tried. Strong suggestion as to the effect of these tablets is usually a useful adjunct to the action of the tablets.

For the pain, if it persists, simple analgesics are indicated. The most useful, probably, being Paracetamol 0.5 G. or some form of aspirin, in dosage of two tablets three or four times throughout the day.

Treatment with anti-cholinergic drugs such as Belladonna alkaloids, anti-spasmodics and various other drugs have all been recommended but have not been found to be particularly satisfactory if used alone, that is, without accompanying treatment of the patient's emotional disturbance.

Hormone-therapy has been no more successful. P. M. F. Bishop (1952) has pointed out that: "Although it is possible to inhibit ovulation by giving 2 mg. Stilboestrol daily for 14 days commencing within five days of the first day of the previous period and that this almost always is followed by a painless period; this is palliative not curative—even after two years, painful ovulatory cycles are likely to recur". Aleck Bourne (1947) also warned that: " There is nothing approaching certainty either by this (Stilboestrol) or any other form of hormone treatment", and he has recently repeated this view (Bourne, 1964).

More recently it has been suggested that inhibition of ovulation by use of Norethisterone 5 mg. three times a day from the 5th to the 25th days of the cycle, and repeated for three or four months is useful. But it should not be given indefinitely because there may be danger of inhibition of the pituitary with prolonged use, which was not at all emphasized in an article on this subject in the *Gazette* of June, 1963.

Various surgical measures have been described for the treatment of dysmenorrhoea. Dilation of the cervix has been used for many years but there is little rational explanation as to why this should work. Wrigley (1949) stated that 20 years previously, over 100 dilation operations were performed for spasmodic dysmenorrhoea each year at his hospital. But in the last ten years fewer than 10 such operations were performed each year and in 1946 only three. Such drastic measures as pre-sacral sympathectomy seem unwarranted, except possibly in the most intractable and difficult case.

The only treatment required for mittelschmerz is that of explanation, re-assurance and the supply of simple analgesics for use at the time of the pain.

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NOTICES

Department of Surgery

The Department of Surgery, Guy's Hospital Medical School, would be pleased to purchase any of the following issues of the British Journal of Surgery:—

January, 1963. March, 1963. May, 1963. July, 1963. September, 1963.

Guy's Science Club

The next meeting of the Science Club will be held in the Medical School Committee Room (New Pathology Block) on Wednesday, 13th May, at 4.45 p.m. when D. J. R. Batchelor of the Immunology Section of the Pathology Department will speak on:

"The Influence of Sex on the Rejection of Incompatible Tumours."

The Chair will be taken by Dr. M. H. Lessof.

Tea will be served in the Staff Common Room at 4.30 p.m. and a cordial invitation is extended to all members of the Teaching and Research Staffs of the Hospital and Schools.

MARJORIE J. HILL,
Honorary Secretary.

Sports Day

The Athletic Club will be holding their annual Sports Day at H.O.P., on Saturday, 6th June. It will begin at 2.30 p.m. and will be followed by a Dance in the pavilion at 8.30 p.m. All members of the hospital staff and students are most welcome.

A. WINSKILL.

PHARMACLASSICA

ERGOT

Although it seems hardly possible that so unusual a phenomenon of nature could have escaped the attention of writers of classical times, there is no undisputed medical references to Ergot before the middle of the 16th century. Its use in obstetrics probably dates from about 1750 and it was included in the London Pharmacopoeia of 1836. That the consumption of flour made from grain, particularly rye, infected by a fungus, Claviceps purpurea, could be the cause of a disease which at times could rise to epidemic proportions, was known from very early years in Europe. Ergotism, characterised by a burning sensation in the limbs, followed by gangrene of the extremities, was known as St. Anthony's Fire and many of the plagues which ravaged Central Europe in the Middle Ages were very probably due to or accompanied outbreaks of Ergotism. Such outbreaks frequently followed seasons of rain and scarcity, conditions which not only encouraged the growth of the fungus but also lowered the resistance of the population. Most cereals are liable to infection with Claviceps, but rye, the traditional food-grain of Central Europe, is particularly susceptible. The fungal spores settle in the developing ear and the growing mycelium attacks the young grain which is eventually replaced by the characteristic sclerotium projecting from the ear. The sclerotium is one of the reproductive stages of the fungus which, in this form, is able to survive the damp and cold of winter.

The active constituents of Ergot were investigated by Barger and and Carr, 1906, Kraft, 1907, and Stoll, 1920. A number of alkaloids were isolated but none of them, alone or in combination, accounted for the full characteristic action of Ergot and it was not until Chasser and Moir isolated Ergometrine, a water-soluble alkaloid, that the picture was complete. Ergometrine is, of course, extensively used in obstetrics while Ergotamine has found application in the treatment of migraine. In this respect the derivation of the Ergot alkaloids from Lysergic and iso-Lysergic Acids may be of signficance.

DIGITALIS

Few people can be unfamiliar with the Purple Foxglove, that elegant and stately plant common throughout the greater part of Europe, growing wild on the edges of woods and thickets and cultivated in many gardens. Not so many are aware of the medicinal value of Digitalis Purpurea. The Welsh " Physicians of Myddvae " appear to have used Foxglove leaves. The botanists Fuchs and Tragus (c. 1550) described the plant and gave it the name of Digitalis. The word Foxglove is said to derive from the Anglo-Saxon "Foxes-glew", i.e., Fox Music, an allusion to an ancient musical instrument consisting of bells hung on an arched support. It is stated that the leaves should be collected while the plant is in flower, not because of any greater potency or content of active principal but for the simple

explanation that the presence of the flower precluded the inclusion, by accident or deliberation, of leaves of other plants, Mullein, Comfrey and Primrose being not dissimilar. As most of the drug is now collected from cultivated plants the stipulation is now somewhat unnecessary. The effect of Digitalis on the heart was apparently not fully appreciated by early physicians. Although it was included in the London Pharmacopoeia of 1640, Culpepper, some ten years later, refers mainly to its topical use, ". . . confident that an ointment of it is one of the best remedies for scabby heads there is". The first serious investigation of its therapeutic properties and its re-introduction into medicine (1776-9) was chiefly due to the English physician Withering but it was not until comparatively recently that it was realised that all the aqueous and probably most of the alcoholic preparations of Digitalis were or, on storage, soon became practically useless and that better and more consistent results could be obtained from compressed tablets of the powdered drug. The determination and separation of the active principals, chiefly by Swiss workers, was also attended by some uncertainty and it was not until the introduction of reliable biological methods of assay that the true nature of the glycosides of D. purpurea and the related D. lanata were elucidated. Digoxin, obtained mainly from D. lanata, is probably now more frequently prescribed than any other preparation of Digitalis.

NOTICES

Photographic Society

The Annual Exhibition (and this year it will be a Competition as well), will be taking place at the end of June. The exact place and date have still to be finalised. All members of the Hospital are warmly invited to prepare monochrome or colour prints or transparencies for display in the Exhibition and for competition. There will be a small entry fee for the Competition, and it will be judged by someone from outside the Hospital, who will then, I hope, comment on the pictures and present the prizes. We welcome pictures on any subject, and of any type, but especially to do with Guy's and its environs.

J. S. GREGSON, *Hon. Sec.*

Residents' Ball

This will take place on Thursday, 14th May. Mrs. Houston will be the hostess. Anybody working at the hospital, as staff or student, will be very welcome.

E. H. HARLEY, *President of the Residents.*

London to Brighton Stroll

The Stroll this year will take place on Friday/Saturday, May 8th/9th. The start will be from the Tower of London, but the finish will be at Preston Park, Brighton, and not on the promenade as in previous years. Entry forms may be obtained from outside Smith's and should be returned by MAY 2ND.

N. H. JAMES, *Student Secretary.*

CORRESPONDENCE

Hospital Paintings

SIR, The pictures which the Nuffield Trust kindly lent us for the last two years have been returned to them, but they have generously offered to allow us to borrow a new lot of pictures for the coming two years. These will be arriving in the Hospital on Monday next and Professor Keith Simpson has kindly offered to have them on exhibition for a week from April 22nd in the Gordon Museum.

Two year's ago you were kind enough to send your "Special Correspondent" to see the pictures and to review them in the *Gazette*. As last time, the pictures will hang in the waiting spaces in New Guy's House and in waiting spaces in Hunts' House, X-Ray, Out-Patients, etc. It is a condition of this loan that we hang the pictures in public spaces only. A small hanging committee has been formed as last time, and will advise on the choice of pictures for each location.

Yours, etc.,

Guy's Hospital. LADY BOLAND.

Dental Estimates Board

SIR, My attention has been drawn to Mr. Sims' descriptive article on the work of the Dental Estimates Board and although, generally speaking, this presents a factual account, I would like the opportunity to comment on one or two points by way of amplification.

In case your readers should gain the impression that the bulk of treatment carried out by practitioners in the National Health Service requires the Board's prior approval, it perhaps should be mentioned that more than 70 per cent of all estimates received by the Board relate to courses of treatment not requiring prior approval.

The Board's clerical staff numbers approximately 1,200 and whilst they deal with the majority of estimates submitted for approval, they work to closely defined instructions issued by the Board. They have no authority to decline to give approval and they may not reduce any fee claimed in respect of an item of treatment where the Board has discretion as regards the fee; these types of decision are invariably made by a member of the Board's dental staff.

In a limited number of cases the Board may obtain the opinion of a dental officer of the Ministry of Health before giving a decision. Once a decision has been given, however—and in the absence of any new factors coming into existence—reference to a dental officer is not appropriate. Where a practitioner is dissatisfied with a decision of the Board he may appeal to the Minister of Health, who will appoint two independent practitioners to hear the case, or he may resubmit his estimate to the Board for further consideration. If, after the case has received further consideration, the practitioner is still not satisfied, he may then exercise his right of appeal.

Yours, etc.,

R. T. PROUDLER,
Chairman, Dental Estimates Board.

A Formal Introduction

SIR, With the commencement of another academic year in view, may I urge, through your columns, the medical school authorities to provide some form of comprehensive introduction, not only to subjects of the practical course, but also to the personalities and faces with whom new students will be working.

I well remember my own first few days at Guy's when I found myself in the dissecting room with rather vague instructions to dissect the axilla within two weeks. Three days *after* we had begun dissection we were shown a film on "The technique of dissection"!

It was a good couple of weeks before we were able to link the names of our Professors and tutors with the people we saw wandering around from time to time.

Surely it would not be too difficult to arrange a preliminary meeting between the new students and the staff of the various departments—perhaps accompanied by a short talk from each of them on the scope and range of their subjects.

I am certain that it would do much to alleviate the anxiety, apprehension and confusion felt by the "fresher".

Yours, etc.,

Guy's Hospital. JEFFREY GANDZ.

REVIEWS

TEXT BOOK OF OPERATIVE DENTISTRY.

by E. L. Hampson. Heinemann. Second Edition. 1964. Pp. 329. *Price* 50*s*.

In this new edition many of the chapters of the original work have been re-written and several illustrations added. The text is based on lectures given at the School of Dental Surgery in the University of Sheffield, and is primarily intended for undergraduates. There are two major additions to the book; the description of high speed instruments, including the pros and cons of the air-brasive and ultrasonic techniques, and a brief description of the Swiss technique of fusing porcelain to gold.

There are several omissions, the subjects concerned being left to the reader to refer to standard works, for example, radiology has been completely omitted and no instruction is given in infiltration anaesthesia. Phosphate cements are only dealt with very briefly and there is no mention of how seating should be carried out.

The diagrams are excellent throughout and the text is lucid, leaving no doubts in the reader's mind. Apart from the inclusion of descriptions of high speed instruments and the permaporcelain technique this book contains no more than the older, more established books of operative dental surgery.

Although this textbook is a welcome change, it hardly justifies its introduction into the students' already overloaded list of textbooks.

NIGEL KNOTT.

OUTLINE OF ELECTROCARDIOGRAPHY

by H. Harold Priednan. First Edition. McGraw-Hill. Pp. 290. *Price* 46*s*.

Although this book is one of an outline series, its author claims that it will be of value to undergraduate and postgraduate students, as well as to practising physicians. This is indeed a wide consumer spread and as a result the book fits completely into no particular available niche. The undergraduate student probably needs something a little less comprehensive; the postgraduate, something devoting more detail to common conditions; and the practising physician, more filling all round.

However, several very useful sections can be found between the Wolff-Parkinson-White syndrome on one side and the syndrome of absent Q waves in leads I, V5 and V6 on the other. There is an excellent chapter on myocardial infarction, in which the author's use of spatial vector theory acts as a very valuable conceptual aid to understanding. This theory is fully explained in an earlier part of the book which deals comprehensively and clearly with the electrophysiology of normal and abnormal myocardial conduction, leading to a formulation from theory of the normal ECG. Constant attention is paid to the changes in the ECG, with age, and a complete range of normal values is tabulated in the appendix.

Although a little too comprehensive for an introduction to the subject, this book will be very useful for reference purposes when we have qualified.

ADRIAN EDDLESTON.

SPORT

CRICKET

The new campaign was due to start last week-end, but unfortunately due to the miserable weather, the two 1st XI games and the 2nd XI game were all cancelled. Nevertheless, a few nets have been fitted in during the drier weather.

In the Inter-Hospitals Cup draw, Guy's play Westminster in the first round, and, all being well, then meet St. Mary's. Last year was the first time for four years that Guy's had relinquished their hold on the cup; it is hoped to put this right this season.

The first eleven fixture list has been strengthened with new matches against The Crickets, Highland Court, and London New Zealand C.C. The second eleven have considerably more fixtures than last year, and it is hoped that the team will be well supported, so that a regular side can be fielded each week.

Last year, Guy's were strongly represented in the United Hospitals team; the fixture list has been expanded, and now includes five County second elevens. One of these games, against Surrey, is being played at H.O.P. on May 21st. For the third year running, Guy's provide the captain of U.H.

The majority of last year's team are still available, although two notable absentees will be R. Bernard and J. Norman. In addition, H. MacGregor has just had a cartilage taken out, and will not be fit until the end of June. However, there are several promising Freshers, though they have had no chance to perform yet because of the weather.

At a recent meeting of the United Hospitals Cricket Club it was suggested by the Treasurer, Dr. Lewis (Westminster) that the whole nature of the Junior Cup Competition should be altered. Owing to the apathetic approach in past years by many of the hospitals concerned, the competition has often been left undecided. Dr. Lewis proposed that the following new regulations be introduced for a trial period to try to stimulate new interest in the competition.

(1) That to play in the Junior Cup Competition a person must have: (a) qualified at the hospital he intends to play for; and (b) hold an appointment of any kind on the staff at that hospital.

(2) No one may play in the Junior Cup Competition who has in that year previously played in a Cup match for the senior side.

(3) That the competition will consist of games in which no more than 25 overs are bowled by either side. In the event of the side batting second not being all out within 25 overs, the side scoring the most runs shall be the winner.

The above regulations were carried by a majority vote.

This should prove a most interesting innovation to the Competition, but one wonders whether 25 overs is a sufficient number.

We note with pleasure the re-election of Mr. J. B. Blaikley as President of United Hospitals Cricket Club, and G. Hambleton is to be congratulated on being elected Captain for the current season.

RUGBY FOOTBALL

In the seven-a-sides held at Beckenham, the Hospital seven showed at times glimpses of good "sevens" rugby. They put into effect several attractive moves to beat easily National Provincial Bank II and Park House. In the semi-finals, however, they were denied possession by a strong Sidcup side who later went to Twickenham. Team: D. Fleming-Jones, A. J. Allan, J. C. Thomas, J. A. Edgar, D. Hendrick, E. S. Price and R. Brown. I. A. Baker and D. Biggs were unable to participate in the 'sevens' owing to injury.

At the Rugby Club A.G.M., the following appointments were made:—
Captain, 1964-65—I. A. Baker. Junior Team Secretary—F. Rumpus.
Hon. Sec., 1964-65—J. A. Edgar. Schools' Team Secretary—A. Kingdon.
Hon. Assistant Sec.—J. E. Davies.

National Provincial

The Guys Hospital Office, which is opened for your especial use, is under the management of Mr. W. C. Frankum, Southwark Branch, 12-14 Southwark Street, London S.E.1, and enquiries will be welcomed.

HOSPITAL INFORMATION

APPOINTMENTS VACANT

GUY'S HOSPITAL AND SOUTH EAST METROPOLITAN REGIONAL HOSPITAL BOARD

Applications are invited to fill an established vacancy as **Senior Registrar in Orthopaedic and Traumatic Surgery to the Board of Governors of Guy's Hospital and the South East Metropolitan Regional Hospital Board.** The appointment will be made jointly by the bodies concerned, with duties to commence as soon as possible and appointment until 30th September, 1966, and will be held in the first instance at the Regional Hospital and from the 1st October, 1965, to 30th September, 1966, at Guy's Hospital. The post in the Regional Hospital will be held in the Medway and Gravesend Group. The post, which will be reviewed annually on the 30th September is subject to the terms and Conditions of Service of Hospital Medical and Dental Staff, (England and Wales).

Forms of application are obtainable from, and should be lodged with, the Superintendent, Guy's Hospital, London, S.E.1., not later than **12th May, 1964.**

GUY'S HOSPITAL, S.E.1.

Applications are invited for the post of **locum Senior Registrar in Clinical Pathology** for the period 1st June to 30th September, 1964. Application forms are obtainable from, and should be lodged with, the Superintendent, Guy's Hospital, S.E.1., not later than **15th May, 1964.**

GUY'S HOSPITAL MEDICAL SCHOOL

Applications are invited for a post of **Research Assistant** to study current trends in community medicine. The work will involve travelling and discussions with general practitioners. Experience in general practice and a knowledge of research methods is desirable. The appointment will be for three years and the salary will be in the range £1,750 to £2,250, with superannuation; initial salary according to experience. Applications should be submitted by **14th May** to the Dean, from whom further particulars may be obtained.

GUY'S HOSPITAL AND MEDICAL SCHOOL

Junior Staff Appointments, 1964-65

Applications are invited for the following appointments to the Junior Staff of Guy's Hospital commencing on 1st October, 1964, for the session 1964-65. Forms of application are obtainable from the Superintendent and should be lodged with him **not later than 19th May, 1964:**

Anaesthetics
- Senior Registrars 3
- Registrars 4

Cardiology
- Senior Registrar 1

Child Psychiatry
- Senior Registrar 1
- Registrar 1

Clinical Pathology
- Senior Registrar* 1
- Registrars .. .. 4 (1 Haematology)

Dermatology
- Registrars 2

Diagnostic Radiology
- Senior Registrars 2
- Registrars 2
- Trainee Registrars 2

E.N.T. Surgery
- Registrar 1

Endocrinology
- Registrar 1

Genito-Urinary Surgery
- Registrar 1

Medicine
- Senior Registrar* 1
- Registrars 3
- Junior Registrars 4

Neurology
- Senior Registrar 1
- Registrar 1

Obstetrics
- Senior Registrar* 1
- Registrar 1

Ophthalmology
- Senior Registrar (4 sessions) 1
- Senior Registrar (2 sessions) 1
- Junior Registrar 1

Orthopaedics
- Senior Registrar* 1
- Registrar 1

Orthopaedics and Casualty
- Registrar 1

Paediatrics
- Senior Registrar 1
- Registrar** 1

Physical Medicine
- Senior Registrar* 1
- Registrar*** 1

Psychological Medicine
- Senior Registrar* 1
- Registrars 3

Radiotherapy
- Registrar 1

Surgery
- Senior Registrar* 1
- Senior Registrar 1
- Registrars 2
- Junior Registrars 2

Thoracic Surgery
- Senior Registrar 1
- Registrar 1

V.D.
- Registrar .. .. 1 (3 sessions)

***Exchange Senior Registrar posts.**

The Senior Registrar appointments marked * are joint exchange posts with the South East Metropolitan Regional Hospital Board in the subjects as set out below, with appointment for four years, part of this period being spent at a Regional Hospital as specified below.

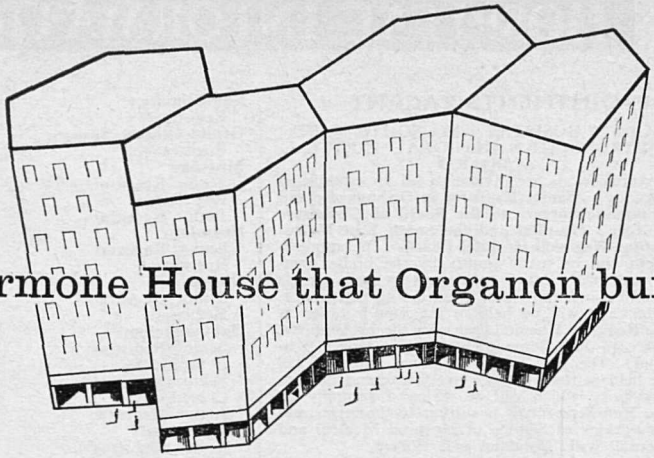
Clinical Pathology—Lewisham Group (2 years)
General Medicine—Bromley Group (1 year)
General Surgery—Bermondsey and Southwark Group (2 years)
Obstetrics and Gynaecology—Bromley Group (2 years)
Orthopaedic and Traumatic Surgery—Medway and Gravesend Group (2 years)
Physical Medicine—Bromley Group (2 years)
Psychological Medicine—Bexley Group (2 years)

****Joint Registrar appointment with the Regional Board.**

The Registrar appointment in Paediatrics, marked **, is a joint interchange post with the South East Metropolitan Regional Hospital Board, with appointment for two years, the first to be spent at a Regional Hospital in the Brighton and Lewes Group, and the second at Guy's.

*****Joint Registrar appointment with the Regional Board.**

The Registrar appointment in Physical Medicine, marked *** is a joint one with the

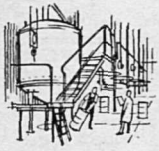


The Hormone House that Organon built

This is the idea that started the plan of the Hormone house that Organon built.

This is the researcher who had the ideas that started the plan of the house that Organon built.

This is the rat that was there at the start, as well as the cows, the sows and rabbits that enabled the researchers to probe the secrets of the hormones which built the house of Organon.



These are the workers who mixed the chemicals that joined up the molecules to make the bricks of the house that Organon built.

This is the doctor who found that the hormones helped his patients and prescribed the products of the house that Organon built.

Organon

THE HORMONE HOUSE

Organon Laboratories Ltd., Crown House, London Road, Morden, Surrey

South East Metropolitan Regional Hospital Board, with appointment for two years, to be spent partly at a Regional Hospital in the Bermondsey and Southwark Group and partly at Guy's.

Applications are invited for the following appointments to the Junior Staff of the Medical School for the session 1964-65, commencing 1st October, 1964. *Forms of application* are obtainable from, and should be lodged with, the Dean **not later than 19th May, 1964:—**

Anatomy
Junior Lecturers (whole-time) .. 2
Junior Lecturers (part-time) 3
Clinical Pathology
Senior Lecturer 1
Medicine
Junior Lecturers 2
Poulton Fellowship 1
Morbid Anatomy and Histology
Lecturer 1
Gull Studentship 1
Pharmacology
Junior Lecturer 1
Physiology
Junior Lecturers 2
Surgery
Lecturer 1
Student Health Service
Assistant to the Director (part-time) .. 1

FELLOWSHIPS AND STUDENTSHIPS

The following Fellowships and Studentships will be available for the Session 1964-65, and application should be lodged with the Dean **not later than 19th May, 1964:—**

(a) The Adrian Stokes Memorial Fellowship —value approximately £460.
(b) The Arthur Durham Travelling Studentship—value approximately £210.
(c) The Beaney Scholarship in Materia Medica —value approximately £140 per annum.
(d) The Francis Lett Travelling Scholarship —value approximately £650.
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GUY'S HOSPITAL GAZETTE

Vol. 78
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16th May 1964

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Editors *T. C. Davis*
B. H. Hicks

Sports Correspondent *N. J. Knott*

Guy's Hospital, London

PASSIM

Bardolatry

For the most memorable aspect of 1964 that man Shakespeare is going to be a strong contender. Even Guy's is entering the quatercentenary fray, and ambitiously, as we are informed on page 246. But evidence from the plays suggests that the poet meddled with doctors as they with him. It was only in the plays of the five or six years from 1603 that Shakespeare made common reference to physical ills and ailments, and "The gout, serpigo, and the rheums" find their mark in scattered lines. During the period of darkest tragedy the references became more frequent with ulcers appearing in *Hamlet,* prolific in *Troilus and Cressida,* and joined in *King Lear* and *Coriolanus* by the boils and blains, the plague-sores, the fevers and the bone-aches, and all the jargon of the Stratford surgery. By the time *Antony and Cleopatra* was written, excluding the occasional leprosy in a curse, the references were gone. Was this just a passing state of mind in the dramatist, or could he have been himself rocked these years by the distress of recurrent sores and boils and aches, some chronic staphylococcal infection perhaps? Had penicillin been to hand, might we now read lyric praise to some other "sore Labour's bath, Balm of hurt minds . . ."?

Shakespeare's elder daughter, Susannah, married a Dr. John Hall, of Stratford, who may well have treated and advised the poet in his distress, and also supplied ideas for the witches' brew of *Macbeth.* It is on good record that one of Hall's applications included the webs of spiders and a little powder of nut shells. A poultice was made of "swallows' nests, dirt, dung and all, boiled in oil of chamomel and lillies, beaten and passed through a sieve, to which was added white dog's turd one ounce, the meal of linseed and foenugreek, each one ounce, ointment of Diathea and hen's grease each half-an-ounce—and so make a poultice—it is applied hot." A prescription hardly less distressing, one feels, than the ill it was designed to cure. But that was when the G of Southwark meant the Globe.

Pulsus Alternans

With a measure of condescending pleasure mixed with a certain surprise, we hear that *Pulse* is re-emerging in the coming week The

periods that lapse between its editions should make our hearts grow fonder, and the lack of a proper cover (it isn't even blue) should not deter deserved support. Financially, such support demands a mere pittance from each student, at whom *Pulse* is primarily directed. In other ways, student interest is not lacking and produces some worthwhile writing and lively comment. Without prejudice, with sympathy, we commend it to our readers!

Dr. Roy M. Acheson, Sc.D., D.M., M.R.C.P., recently Reader in Social Medicine at Guy's, deserves our congratulations for his recent promotion to the Chair of Epidemiology and Medicine at Yale University Medical School.

In another vein, Michael Hutchinson deserves congratulations for the completion of his fifth stroll to Brighton. Is this a record? It is rumoured that he was back on duty in the Dental School at 10.0 a.m. This must be a record.

GUY'S DIARY

MAY			
EXHIBITION.			*Obstructive Jaundice.*
19th	T.	4.00	Dr. G. BERCI of the Dept. of Experimental Surgery, University of Melbourne, will be lecturing on *Advances in Endoscopy* in the Clinical Theatre.
21st	Th.	5.00	Professor WELLS, Fison Memorial Lecture. *The Life of the Lug Worm.* Physiology Theatre.
21st	Th.	1.00	Mr. COOK. Clinical Lecture.
22nd	F.	1.00	Professor RUSHTON. Clinical Lecture. *An Inspection of Tongues.*
23rd	S.	10.00	Clinico-Pathological Meeting. Clinical Theatre.
25th	M.	1.00	Dr. FLEMINGER. Clinical Lecture.
26th	T.	1.00	Dr. MOYNAHAN. Clinical Lecture.
28th	Th.	1.00	Dr. MACKENZIE. Clinical Lecture.
JUNE			
1st	M.	1.00	Dr. McARDLE. Clinical Lecture.
9th	T.	1.00	Mr. CLARKSON. Clinical Lecture.
11th	Th.	1.00	Dr. HOARE. Clinical Lecture.
12th	F.	1.00	Mr. BRAIN. Clinical Lecture.

A SCIENTIFIC BACKGROUND TO CLINICAL MEDICINE 20

Chemical Studies on Myelin and the Demyelinating Diseases

By C. W. M. ADAMS and G. R. WEBSTER

Departments of Pathology and Chemical Pathology

The demyelinating diseases, in particular multiple (disseminated) sclerosis, have attracted much attention during the last eighty years, yet little headway has been made in our understanding of their pathogenesis. In recent years biochemical and histochemical studies have greatly increased our knowledge of the cytochemical processes involved in the metabolism of lipids, proteins and other constituents of the nervous system. In this article some of these studies and their relation to myelin metabolism and the pathogenesis of demyelinating diseases will be discussed.

The Nature of the Myelin Lipids

In the past it was not technically possible completely to separate myelin from neuronal and neuroglial components of nervous tissue, and evidence concerning the lipid composition of myelin was mainly derived from chemical differences between grey and white matter, or from changes in brain lipids during myelination. These studies suggested that the major lipid components of myelin are sphingomyelin, cerebroside, free non-esterified cholesterol and cephalins (in particular serine-containing and ethanolamine-containing phosphatides).

New high-speed centrifugal and histochemical techniques have permitted the precise identification and localization of most of these lipids in the myelin sheath. For example, sulphate esters of cerebroside (sulphatides) have been shown to be concentrated in centrifugal preparations of myelin (Davison and Gregson, 1962). Free cholesterol can be localized histochemically in the sheath by the naphthoquinone method (Figures 1 and 2). The absence of esterified cholesterol and triglyceride esters (neutral fat) from the intact adult myelin sheath has also been confirmed histochemically (see section on Lipids in Myelination).

The ethanolamine phosphatide of the myelin sheath is probably present almost entirely in the plasmalogen form (Webster, 1960) in which the ester linkage of one of the fatty acids to glycerol is replaced by an α–β, unsaturated ether bond. This ether bond can be detected histochemically by the formation of aldehyde after hydrolysis. (For general reference to histochemistry of myelin see Adams, 1962).

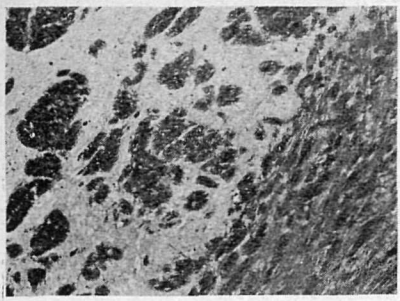

Fig. 1

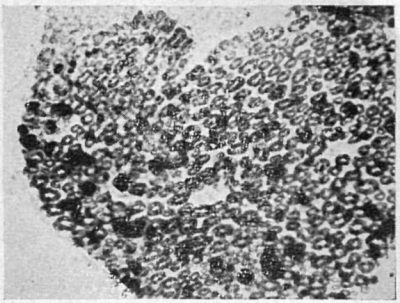

Fig. 2

Proteins in Myelin

Much, if not all, of the lipids of myelin is bound in the form of complexes with protein, which are radially arranged in the ultrastructural lamellae of the myelin sheath (Figure 3). Two major groups of proteins are present in the nervous system; those digestible by trypsin and those resistant to this enzyme. The trypsin-resistant proteins form two different complexes with lipid. One type is not extracted by chloroform-methanol and is designated as neurokeratin, whilst the other, termed proteolipid, behaves like a lipid and can be extracted from brain by this solvent. In the central nervous system ' neurokeratin ' is distributed equally between grey and white matter, but, from histochemical and biochemical evidence, proteolipid appears to be mainly in myelin. In the peripheral nerve there is only about a tenth of the amount of proteolipid-protein found in white matter of the brain and cord. ' Neurokeratin ' of the peripheral nerve, unlike that found in the central nervous system is located entirely in the myelin sheath. In the peripheral nervous system, ' neurokeratin ' can be identified histochemically in the myelin as a tryptophane-rich, trypsin-resistant lipoprotein complex that is insoluble in anhydrous neutral lipid solvents. This difference between trypsin-resistant lipoproteins of the CNS and of peripheral nerve allows a chemical distinction to be made between these two myelins.

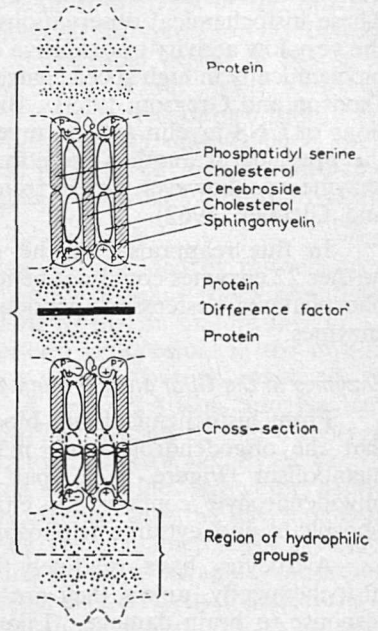

Fig. 3

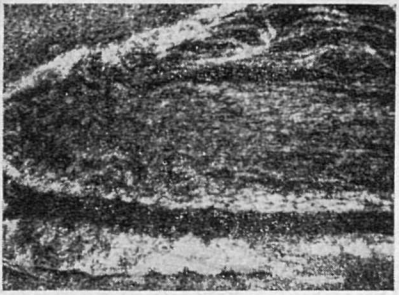

Fig. 4

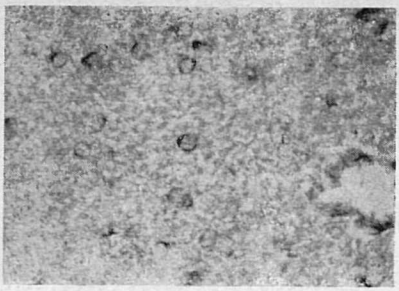

Fig. 5

The evidence for the presence of a complex between trypsin-digestible protein and lipid in both the central nervous system and the peripheral nervous system is discussed later.

Enzymes in Myelin

There has been some dispute about the presence of enzymes in the myelin sheath. It has been claimed, on histochemical grounds, that a wide range of hydrolytic enzymes of the phosphatase and esterase type, and certain oxidative enzymes are present in myelin. In repeating these investigations, only alkaline glycerophosphatase could be convincingly identified in peripheral nerve myelin and no enzymes could be identified histochemically in CNS myelin. However, a lipid-bound proteinase, hydrolysing casein and gelatine, has been localised histochemically in peripheral nerve myelin (Figure 4). These histochemical observations on CNS myelin were confirmed by the very low activity of oxidative enzymes and phosphatase determined biochemically in high speed centrifugal preparations of myelin (Adams, Davison and Gregson, 1963). Biochemical investigations on preparations of CNS myelin and on myelinated rat sciatic nerve have shown the presence of another proteolytic enzyme, an aminopeptidase; this enzyme was, however, absent from unmyelinated lobster nerve (Adams and Glenner, 1962).

In this reappraisal of the enzyme histochemistry of myelin a further 22 enzymes could not be identified in the sheath; these included phosphatases, esterases, peptidases and a number of respiratory enzymes.

Enzymes in the Glial and Schwann Cell

From histochemical and biochemical studies it has become clear that the oligodendroglia are mainly responsible for glial oxidative metabolism (Figure 5). Apart from their oxidative activity, the oligodendrocyte contains the enzymes that hydrolyse adenosine triphosphate and cytidine triphosphate.

Astrocytes have relatively little oxidative capacity, as shown histochemically, unless they are undergoing hypertrophic changes in response to brain damage. Likewise, the microglia, which normally

show little oxidative activity, become enzymically active when engaged in lipid phagocytosis (gitter cell). The Schwann cell, the counterpart in the peripheral nerve to the glial cell in the CNS, has a similar enzyme complement to the oligodendrocyte. During myelination a marked increase in the activity of certain enzymes concerned in oxidative metabolism has been detected histochemically in the oligodendroglia (Friede, 1961a) and, correspondingly, the oligodendroglia proliferate at the onset of myelination. In the pyramidal tract the number of these cells falls when myelination is complete but, in other tracts studied, the population of oligodendrocytes continues to increase into adult life. Friede suggested that the loss of these cells from the mature pyramidal tract is associated with the high oxidative activity of the axons in this tract. Conversely, in those tracts where the axons have little oxidative capacity, oligodendrocytes are found in much larger numbers. This inverse relationship can be regarded as a metabolic symbiosis between the neurone and glial cell.

The partial dependence of the oligodendroglia on oxidative metabolism, particularly in the proliferative phase of myelination, indicates that these cells are more vulnerable to anoxic damage than astrocytes.

Lipids in Myelination

Biochemical investigations have shown a progressive increase in "myelin" lipids and proteolipid protein during myelination (Folch, 1955; Davison and Wajda, 1959) yet other workers have claimed that these lipids, or their precursors, may be present in the brain before myelination. However, biochemical analyses of the lipids in the developing whole brain are difficult to interpret, for myelination of different tracts is spread over a considerable period of post-natal development. Histochemical studies have so far been somewhat contradictory in that some workers have reported diffuse lipid droplets, stainable by Sudan black, throughout the unmyelinated brain and optic nerve, while other workers have failed to find more than occasional lipid droplets in the "ground-substance" (neuropil) of the unmyelinated brain and cord.

An interesting feature of myelination, revealed by histochemical and biochemical means, is that the pattern of lipids which are at first laid down in the sheath is not the same as that in mature myelin. It has been shown that esterified cholesterol is deposited in the myelinating sheath (Adams and Davison, 1959) but is removed, or de-esterified, during the maturation of myelin (Adams and Davison, 1960). De Almeida and Pearse (1958) have suggested that a sphingomyelin may be deposited in the developing sheath slightly before the appearance of other phospholipids and cerebroside. However, neither of these observations can be easily reconciled with the developmental morphology of myelin as revealed by electron microscopy. Myelin appears to be formed by the wrapping round of invagination around the axon of a double layer of membrane, derived from oligodendrocyte or Schwann cell. Each double layer of membrane represents an ultra-

structural myelin lamella and there may be 100—200 such lamellae in the fully developed sheath. From the histochemical observations outlined above, it must be inferred that the membrane lipids of developing myelin are not all deposited simultaneously and that considerable re-arrangement of the lipids occurs during the maturation of myelin.

Metabolic studies on myelin

In the last twenty years, many detailed biochemical studies have been made on the metabolism of lipids and proteins in the nervous system of the experimental animal. Most of these studies have been concerned with the incorporation—in vivo and in vitro—of various radioactive precursor substances into the lipid, protein and other components of the nervous system. In this way it has been possible to delineate the biosynthetic pathways by which certain of these substances are formed. For example, in one synthetic pathway for lecithin, choline is first phosphorylated with the aid of ATP to form phosphorylcholine; this intermediate is then attached to the free α' position of α, β-diglyceride by a reaction that utilizes cytidine nucleotide as a co-factor. The now extensive literature on lipid and protein metabolism in the nervous system has been reviewed respectively by Rossiter (1962) and Richter (1962).

Davison, Dobbing, Morgan and Payling Wright (1959) investigated the important problem, relevant to our further understanding of the pathogenesis of human demyelinating diseases, whether the lipids and proteins of the myelin sheaths are constantly being broken down and resynthesised or whether they remain comparatively inert—in the metabolic sense—once they have been formed during myelination. In their comprehensive studies on this problem, Payling Wright and his co-workers at Guy's administered radioactive cholesterol to young animals during the phase of active myelination and then estimated the retention of this labelled lipid in the brain after various intervals of maturation. Much of the administered radioactive lipid was retained for over a year; this retention was particularly evident in cerebral white matter when compared with grey matter. Similar long-term experiments on the radioactive labelling of other myelin lipids (Davison, Morgan, Wajda and Payling Wright, 1959; Davison and Dobbing, 1960) and proteolipid protein (Davison, 1961) also showed persistence of the isotope for long periods into adult life, especially in regions of the nervous system rich in white matter. This persistent radioactivity was more precisely localized in myelin when it was shown that almost all the recovered isotope was in the centrifugal fraction of brain containing myelin (Davison and Gregson, 1962). These findings, together with the enzymic inactivity of myelin (see above) suggest that, collectively, the lipid and protein components of of the mature myelin sheath are metabolically rather stable and normally undergo only trivial turnover.

The Demyelinating Diseases

The major histo-pathological feature of the true demyelinating diseases is the occurrence of demyelination with—at first—preservation of axon and nerve cell. This relative sparing of the axon constitutes an important point of distinction from secondary demyelination (Wallerian degeneration), where axon and myelin degenerate simultaneously.

This group of diseases comprises multiple sclerosis (disseminated sclerosis, insular sclerosis), concentric sclerosis (Balo's disease), neuromyelitis optica (Devic's disease) and diffuse sclerosis (Schilder's disease; sudanophilic leucodystrophy). The general pathology and problems of aetiology and pathogenesis of multiple sclerosis have been excellently reviewed by McAlpine, Compston and Lumsden (1955) and by Schumaker (1960). Concentric sclerosis and neuromyelitis optica may be regarded merely as anatomical variants of multiple sclerosis, whilst diffuse sclerosis is more akin to an acute form of multiple sclerosis, occurring in children and young adults, than to a leucodystrophy. Viral, para- and post-infectious encephalomyelitis are not true demyelinating diseases because the axon degenerates *pari passu* with the myelin.

Experimental focal lesions produced by chronic sub-lethal poisoning with malononitrile, cyanide or azide are true demyelinating conditions. There is some doubt, however, whether the demyelination that occurs in experimental allergic encephalomyelitis is a primary condition. It is produced by the injection into the animal of homologous or heterologous brain extracts together with suitable adjuvant and it has been held that the resulting plaques of demyelination are due to allergic inflammatory necrosis of myelin. Although axons are largely or partly preserved in the demyelinated areas of these experimental diseases (Figure 6) the patho-anatomical and histological features are different in many respects from multiple sclerosis.

Chemical Investigations on Demyelination

The metabolic stability of normal adult myelin, discussed above, points to some process causing abnormal breakdown of lipid and protein as the probable pathogenic mechanism of demyelination,

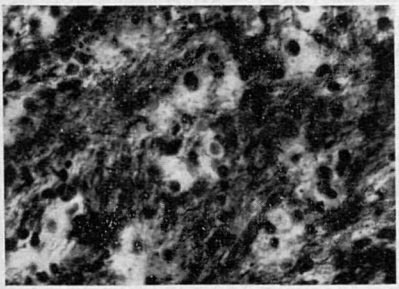

Fig. 6

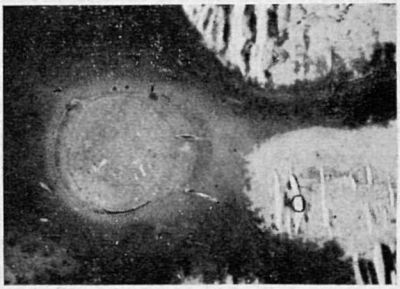

Fig. 7

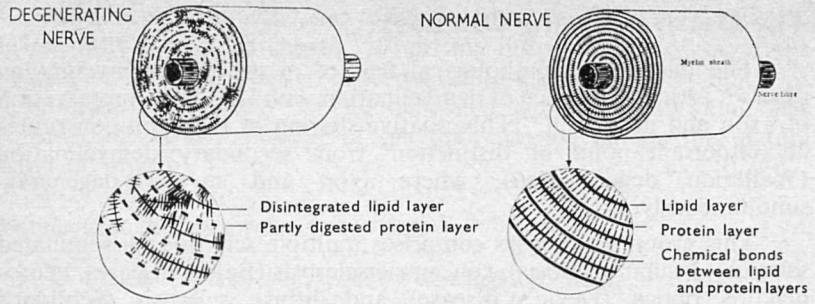

Fig. 8

rather than a failure of metabolic maintenance of the chemical components of the sheath.

Many investigations on demyelination have been concerned with Wallerian degeneration. This type of demyelination is easy to produce experimentally; it gives consistently reproducible results and the chronological sequence of events can be readily observed. Although Wallerian degeneration is anatomically a different process to primary demyelination, there are adequate reasons for assuming that many of the chemical and physico-chemical events within the degenerating myelin are the same in the two conditions.

In a series of biochemical investigations, reviewed by Rossiter (1961), it was found that the myelin lipids are degraded and cholesterol esters are formed during Wallerian degeneration and, moreover, these esters appear in the demyelinating plaques of multiple sclerosis. Histochemical studies have confirmed the presence of cholesterol esters in both types of demyelination. The chemical degradation of the myelin lipids is not, however, the primary event in demyelination, for cholesterol esters are not formed in appreciable quantity until 8 days after nerve section. Nevertheless, during the first week after nerve section, the sheath undergoes marked physical fragmentation even though the biochemical and histochemical characteristics of the myelin lipids remain normal.

Proteins in demyelination

It is clear that the early processes in demyelination do not involve chemical breakdown of the myelin lipids. However, dissociation of lipids from neurokeratin—the myelin protein of the peripheral nervous system—is a feature of the initial stages of Wallerian degeneration (Adams and Tuqan, 1961). Changes in the myelin proteins and their complexes with lipids seemed, therefore, a reasonable field to explore in order to explain this early fragmentation of the sheath without concomitant lipid degradation. Investigations on the trypsin-resistant proteins of the central and peripheral nervous systems revealed neither biochemical nor histochemical abnormalities of a significant nature during the early stages of demyelination. It was then observed that tryptic digestion of myelin in histochemical preparations led to the release of myelin lipids both in the central nervous system (Figure 7)

and the peripheral nervous system. The explanation for this phenomenon lay in the enzymic removal of the protein moiety from a complex between trypsin-digestible protein and lipid.

After tryptic digestion, the myelin lipids still appeared normal by histochemical criteria, even though they were dissociated from the sheath and were either lying clumped in the tissues or had been partially washed out of the tissue section. *In vivo* action of proteolytic enzymes (? lysosomal cathepsin) on the myelin sheath could, therefore, explain the initial disruption of the sheath in demyelination. A diagrammatic representation of these changes in terms of myelin ultrastructure is shown in Figure 8.

The source of such proteolytic enzymes could be the endogenous protease and aminopeptidase of the nerve (see section on *Enzymes in Myelin*). If so, demyelination would proceed as a chain reaction; a focal area of demyelination would liberate more enzyme to promote further demyelination. In support of this view, an apparent increase in proteolytic activity of peripheral nerve was observed in the first few days of Wallerian degeneration. Most of this increased activity resulted from greater accessibility of the enzyme to acqueous extraction, presumably due to its release from its normal "fixed" position in the myelin structure.

Lysophosphatides and myelin

The surface-active and cytolytic lysophosphatides may also be involved in the process of demyelination. These substances are partially degraded glycerophosphatides, containing only a single fatty acid group, and are characterised by potent surface-active (detergent) properties. Morrison and Zamecnik in 1950 suggested that tissue damage including demyelination might result if lysolecithin were to be formed locally in, or were to gain access to, the nervous system. High concentrations of lysolecithin do, in fact, cause cytolysis and almost complete solubilization of the lipid and protein components of neurones, glia and myelin (Webster, 1957), while many of the tissue enzymes in these solubilized preparations remain almost fully active (Marples, Thompson and Webster, 1959). When brain slices are exposed to lower concentrations of lysolecithin—insufficient to produce complete cytolysis—several intracellular enzymes leak out of cells, thus indicating that membrane structures (including ? lysosomes) in the brain have been severely damaged (McArdle, Thompson and Webster, 1960).

Small amounts of lyosecinthin are now known to be normally present in the nervous system (Webster and Thompson, 1962). Furthermore, brain extracts have been prepared that can form lysolecinthin from added lecithin, probably by the action of the enzyme phospholipase A (Gallai-Hatchard, Magee, Thompson and Webster, 1962). The lysophosphatide may then be further degraded by the action of another brain enzyme, phospholipase B (Marples and Thompson, 1960). Recently it has been found that rat brain also contains an enzyme system, requiring coenzyme A and ATP as co-factors, that

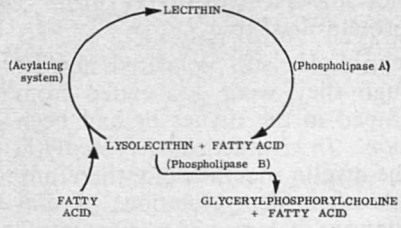

Fig. 9

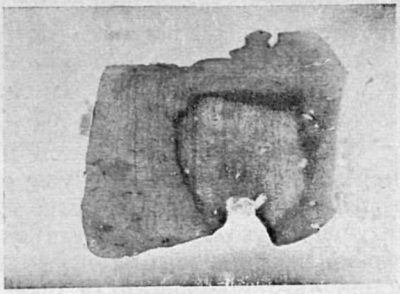

Fig. 10

reforms lecithin by catalysing the addition of a long chain fatty acid to lysolecithin (Webster, 1962).

A metabolic cycle may, therefore, be present in brain (Figure 9) concerned with the turnover of the fatty acids of phosphatides. In this cycle, it is postulated that one of the two fatty acids of glycerophosphatides undergo turnover independently of the rest of the molecule, with the production of small amounts of lyso-derivative as an intermediate. These latter compounds could then either be re-acylated with a fatty acid to reform glycerophosphatides, or be further degraded to simpler substances. Local alteration in the amounts of lysophosphatides in the brain could result from disturbance in the metabolic cycle proposed in Figure 9; this hypothesis and its relevance to the pathogenesis of demyelinating disease is at present being studied in the Department of Chemical Pathology at Guy's.

In addition to possible abnormal action of enzymes derived from various components of the brain tissue—including possibly lysosomes—another hypothesis which has been considered is that such enzymes in the plasma might gain access to myelin as a result of immunological damage to the vascular endothelium. There have been several claims to have demonstrated alteration in plasma enzyme activities in patients with multiple sclerosis, but many of these have not been confirmed and as yet there is no real evidence of such changes (Thompson, 1961).

McArdle and Zilkha (1963) have recently studied the increase in phospholipid content of the CSF which is known to occur in several different types of neurological disease. By using micro-analytical methods these workers have demonstrated that in demyelinating diseases, including multiple sclerosis, the most marked increases are found in those types of phospholipid which are particularly characteristic of the myelin sheath. On the other hand, a different CSF pattern was seen in inflammatory conditions where increases occur in those phospholipids which are characteristic of serum. These observations may have application in diagnosis.

Baker, Thompson and Zilkha (1963) have reported a reduced proportion of unsaturated long-chain fatty acids in lecithins obtained from plaque-free regions of brain in multiple sclerosis. This finding is clearly of great potential importance in relation to the pathogenesis

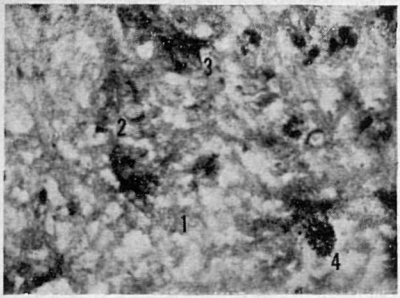

Fig. 11

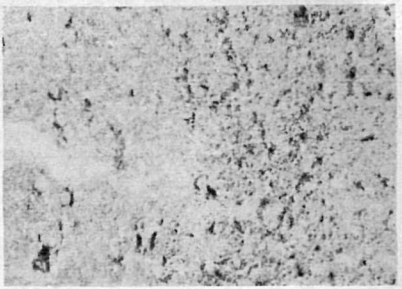

Fig. 12

of this demyelinating disease, since it implies the presence of an abnormality in some aspect of fatty acid metabolism in these cases; this hypothesis is now being examined at Guy's from several different aspects.

Histochemistry of the Neuroglia in Demyelination

Over fifty years ago, Marburg suggested that demyelination may result from the release of a myelinolytic enzyme. This hypothesis was expanded by Lumsden (1951) who advanced the view that destruction of the nutritive cells of CNS myelin—the oligodendroglia—may bring about the local release of such an enzyme. Lumsden found that the oligodendrocytes disappear from the plaque of multiple sclerosis. Recent cytological studies, however, have shown that there is, in fact, an increase in oligodendrocytes at the active edge of the plaque but there is usually a reduction in the number of these cells in the centre of the plaque.

There have been several histochemical reports of increased phosphatase and oxidative enzyme activity in areas surrounding the plaque of multiple sclerosis (see Friede, 1961b). Friede suggested that the increased enzyme activity at the edge of the plaque is related to the increased neuroglial population in this zone. Further histochemical studies (Ibrahim and Adams, 1963) have shown that most of the increased enzyme activity at the edge of the plaque of multiple sclerosis (Figure 10) is in mitochondria of the neuropil, but that the cell bodies of oligodendrocytes, reactive astrocytes and activated microglia contribute to the total enzyme reaction (Figure 11). These enzymically-active mitochondria were tentatively regarded as those of oligodendrocyte processes in the neuropil. The main problem raised by these observations was whether the increased enzyme activity in the neuroglia at the edge of the plaque precedes demyelination or whether it is merely a response to plaque-formation. However, studies on the demyelinating encephalopathy produced by injection of cyanide into the rat show that the oligodendrocyte hypertrophies, proliferates and becomes enzymically active (Figure 12) before the onset of demyelination (Ibrahim, Briscoe Bayliss and Adams, 1963). These observations suggest that increased activity of the oligodendrocyte—the formative and nutritive cell for myelin—is a further

factor in the pathogenesis of the demyelinating diseases. Since the oligodendrocyte may well be concerned with electrolyte and fluid transport from blood vessel to brain substance (Luse, 1960), it is tempting to speculate that the increased activity of this cell, in both multiple sclerosis and cyanide encephalopathy, is related to "oedema" caused by damage to vascular endothelium in the brain.

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LEGENDS.

Figure 1. Cholesterol in myelinated tracts in corona radiata of brain. Perchloric acid-naphthoquinone, x 48. *Figure* 2. Cholesterol in peripheral nerve, PAN, x 233.

Figure 3. Suggested ultrastructural arrangement of the myelin lamella (after J. B. Finean).

Figure 4. Proteinase activity in myelin of peripheral nerve. The white areas are sites where enzyme has digested gelatin and liberated the silver granules of an exposed photographic plate, x 48. *Figure* 5. Lactic dehydrogenase activity in the form of perinuclear crescents and haloes in oligodendrocytes of normal white matter, Lactate-nitro-BT, x 275.

Figure 6. Partial preservation of axons in cyanide induced demylinating lesion of rat brain. Bielschowsky, x 235. *Figure* 7. Release of lipids from white matter of human brain after focal digestion of the section by trypsin. Sudan black x 3.

Figure 8 (x 2). Diagrammatic representation of the action of proteolytic enzyme on the ultrastructure of myelin.

Figure 9. The possible metabolic relationship between glycerophosphatides and their lyso-derivatives.

Figure 10. Increased lactic dehydrogenase activity around a plaque of multiple sclerosis, Lactate—Nitro-BT, x 2.

Figure 11. Increased lactic dehydrogenase in the edge of a plaque of multiple sclerosis to show activity in diffuse mitochondria (1), hypertrophied oligodendrocytes (2), reactive astrocytes (3) and activated microglia (4). Compare with Fig. 5, Lactate-Nitro-BT, x 275.

Figure 12. Increased lactic dehydrogenase in mitochondria and in perikanyon of oligodendrocytes in pre-demyelinating cyanide lesion (right) of rat brain. Lactate—Nitro-BT, x 235.

NOTICES

Guy's Hospital Dental School—Alumni Luncheon

The Alumni Luncheon, on the occasion of the Annual Conference of the British Dental Association, will be held at the Connaught Rooms, Great Queen Street, Kingsway, London, W.C.2, on WEDNESDAY, 1st JULY, 1964, at 1.0 p.m. The cost of the luncheon will be 24/-, excluding wines, but including gratuities, and those persons intending to be present are asked to apply for tickets to Mr. Goodliffe, Medical School, Guy's Hospital, S.E.1, together with a cheque for the appropriate amount, made payable to Guy's Hospital Medical School, not later than FRIDAY, 26th JUNE, 1964.

Guy's Hospital Music and Theatre Clubs

" an entertainment "

You are warmly invited to an informal evening of Shakespeare, to be presented in the Physiology Theatre on 1st and 2nd June. Novel in form and design, *the entertainment* will reflect Shakespeare's life and poetry, plays and passions, and the atmosphere and music of his England. On this quatercentenary occasion it is hoped that our audience will respond with support and enthusiasm to this theatrical venture, at once tribute and experiment.

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GUY'S HOSPITAL LYING-IN CHARITY

by A. J. McNair

The Extern Midwifery District was closed in August, 1963. Obstetric teachers are now in the main opposed to the home delivery of women and see little value to the student of experience on the District. But the announcement will stir memories of many older Guy's men. A few, no doubt, were diverted from clinical medicine to more placid academic pursuits by their brief experience of four weeks' extern duty but the majority, I believe, will recall their first real contact with the Borough people in their own homes as a valuable introduction to their life's work. The closing of the District marks an epoch in the history of the Hospital and its Medical School which should not be allowed to pass without some thought of those who initiated a service which lasted one hundred and thirty years and without some attempt to assess the achievement of those men and of their successors.

The Lying-In Charity of Guy's Hospital was opened on October 1st, 1833, and it is profitable to recall the important events which led to its inception.

Since 1768, St. Thomas' and Guy's had provided for the training, by lectures and demonstrations, of the pupils of the members of their staffs in the Medical School of the United Hospitals.

This union was subject to many tensions and finally broke down in 1825 with the consequent creation of an independent Guy's Medical School. The causes of the rupture are well recorded and discussed by our historians, [1]Wilks and Bettany, [2]R. M. Wingent, [3]Charles Cameron, but what is perhaps insufficiently stressed is the effect of the Apothecaries' Act of 1815. This Act of Parliament, by reducing the length of the future doctors' apprenticeship to an apothecary (general practitioner) and increasing the number of months he must devote to "walking the hospital" enhanced the importance of the hospitals' Medical Schools. It was also important that the curriculum should be overhauled. The driving force behind the establishment of an independent School was, of course, the Treasurer, the great Benjamin Harrison who ruled Guy's from 1797 to 1848. He was supported by the staff most of whom he had himself selected, and succeeded in persuading them, with one or two exceptions, to waive their financial interests in their courses of lectures and other sources of income from teaching. The School thus became the recipient of all pupil fees and the employer of all the lecturers. Mr. Harrison was also able to provide 100 new beds and the necessary lecture theatres and offices with money derived from the great bequest of William Hunt who, by this benefaction, earned the title of "our Second Founder". Most of these buildings sprang up on the site later occupied by Hunt's House

but one ward, reserved for gynaecological cases, named Petersham, was built just behind Guy's House.

Two years later, on October 1st, 1833, the Lying-In Charity was opened with Dr. Samuel Ashwell as Obstetric Physician in Charge. His appointment resulted in the resignation, in 1834, of Dr. James Blundell after a bitter dispute with his successor and with the Treasurer. This was a great loss to the Hospital. Blundell was a man with an original mind who by his experimental researches made valuable contributions to medical knowledge some of which have been recently reassessed[4, 5]. One can only speculate on what further laurels he might have earned if he had remained to work in harmony with the brilliant group who were destined to add lustre to the name of Guy's in the nineteenth century. Blundell continued in active practice, and died 44 years later, but his genius was blighted and no further work of value was forthcoming.

But Samuel Ashwell was a good choice and the new Charity, starting on a modest scale, was soon flourishing. He has left us an analysis of the first year's work on his Maternity Charity in the first volume of the Guy's Hospital Reports published in 1836. He states, "the object of this Charity is to provide poor women with medical attendance and medicines during confinements at their own habitations". "The patients are attended by pupils of the obstetric class who, in case of necessity, have the assistance of two clinical clerks or of two obstetric Physicians".

These extracts show that the Charity was organised on a sound basis. It was designed to bring skilled assistance into the homes of the local poor and was in no sense aimed solely at providing clinical material for the instruction of students.

The two "Clinical Clerks" were qualified men who were provided with accommodation in a house at No. 31, Kings Street (Newcomen Street after 1860). Charles Cameron[6] points out that these two men represent the first residents appointed by Guy's Hospital and comments that "these house officers were appointed twenty-three years before the first House Surgeon and 32 years before the first House Physician".

Dr. Ashwell states that in the first year 174 women were delivered. A stillbirth rate of 8.6% can be calculated from the figures, instrumental assistance was given in 4 cases. In a later paper, in Vol. 1, Dr. Ashwell reports a District case in which Mr. Lever, one of the clinical clerks, after two unsuccessful attempts at internal version summoned his chief who states[7] "I recommended that she should be admitted to the Hospital, a small ward having been prepared for her, where attention could be given to her which the poverty of her own dwelling entirely precluded". This proves that serious cases were sometimes transferred to Hospital before delivery. In another paper[8] he discusses the propriety of inducing premature labour by puncture of the membranes in pregnancy complicated by tumour. The case which he cites in order to illustrate this procedure, was one of uterine myomata complicating pregnancy. He recognised the softening of the "hard tumour" during pregnancy and suppuration of the tumour after delivery.

Dr. Ashwell published a statistical account[9] of the second year of the charity during which 478 babies were born with a stillbirth rate of 7.1%.

In a preamble he says, "I am again indebted to the persevering accuracy of Mr. J. C. W. Lever, one of the Obstetric Clinical Clerks of the Hospital". J. C. W. Lever became assistant to Dr. Ashwell in 1842 and seven years later on the resignation of Dr. Ashwell was appointed joint lecturer in Midwifery with Henry Oldham as his colleague. These two men were given full status as Obstetric Physicians on the Staff of Guy's Hospital. They were the first obstetricians to attain this distinction. Their predecessors, Haighton, Blundell and Ashwell were lecturers in the Medical School solely. Both these men had already made valuable contributions by clinical observation. Lever had announced his discovery that women suffering from puerperal convulsions had albuminous urine[10]. This fundamental finding led, at a later date, to the routine testing of the urine in pregnancy and consequent reduction in the incidence and severity of eclampsia. An example of Lever's ingenuity may be quoted. He records in the second Septennial report how he treated a woman, Eliza P., aged 26, Para. 3, who was in protracted labour due to a "rigid os" by multiple incisions of the cervix by means of a bistoury with a happy result. Oldham is remembered as the first British gynaecologist to point out "that extra-uterine pregnancy is often preceded by inflammation of the Fallopian tube". Their zeal in carrying out their duties in the Lying-In Charity is shown by the careful reporting and analysis of their results. Lever was responsible for the First Septennial Report[12] (1841) and he was joined by his younger colleague in the preparation of the Second Septennial Report[13] in 1848 and a Third Septennial Report[14] in 1855.

Finally the two men analysed the collected figures presented in these three Reports in a [15]"Report of twenty-one years of the Lying-In Charity". As a result of these contemporary records it is possible to obtain some idea of midwifery in their times and of the development of the Charity under their care.

It is convenient to quote from the Report in which the first twenty-one years working is analysed. The number of women attended, only 173 in the first year, rapidly mounted to 1,000 a year and at the "coming of age" of the Charity had reached nearly 2,000 a year. A total of 22,498 women had been delivered by 1854. Of these 160 had died. This represents a maternal loss of 7 per thousand and Lever evidently considered it a rate which was not discreditable to the Charity for he shows that it compared favourably with the published figures of Dublin, Paris, Vienna, Berlin and other hospitals. The cause of death in childbed was sepsis in 60%, haemorrhage in 25% and others causes including "exhaustion" about 10%. Instrumental assistance was given in 91 cases and "lessening of the child's head" (by perforation) in 81 cases. We are informed that there are now three resident obstetric clerks, two of them qualified, living within the walls of the hospital "at the expense of the Charity".

John Charles Lever, M.D.

John Charles Lever's great skill in the Art of Midwifery earned him an enormous practice in South London and with popularity came affluence. He died at the age of 48 and his biographers do not hesitate to attribute his early death to his inability to withstand the fruits of prosperity. But he should be remembered for his great gifts and for his devoted service to "the Institution which was established by the late Mr. Harrison"—the Lying-In Charity.

Oldham was promoted to full Obstetric Physician on Lever's death in 1859 and J. Braxton Hicks was elected Assistant. The next Report on the Lying-In Charity appeared in 1864. It was subtitled [16]"the Fourth decennial report" and was presented by H. Oldham and J. Braxton Hicks. Actually it surveyed the Charity Records for nine years, 1854-63. The authors reported that an average of 1,600 cases a year had been attended with a maternal mortality rate of rather more than $2\frac{3}{4}$ (2.94) per 1,000 or 1 in 340 from all causes whatsoever. A remarkable figure. In the first 21 years of the Charity, 1833-54, the death rate of mothers had been about 7 per 1,000 or 1 in 140. The improvement was attributed by the authors to a reduction in the incidence of puerperal fever. In the latest series the incidence of

fatal sepsis had been 1 case in 1,000 whereas in the first 21 years it had been 1 in 234. Their comment reflects obstetric opinion of their day :—

"This low rate is a satisfactory evidence of the advantage of home confinement over that in Lying-In Hospitals". It is unnecessary to produce contemporary figures to support this contention. Every Lying-In Hospital in Great Britain was forced to close its doors periodically because deaths of mothers from childbed fever had become catastrophic whereas on the District any man having a pyrexial case was put off duty and this simple measure limited the spread of the contagion.

Another reduction in the stillbirth rate is claimed. In the present series (1854-63) it was 4.6%, in the previous 7 years 4.73% and in the first 21 years 5.2%. In this report, for the first time, chloroform and ether are occasionally mentioned in connection with difficult labour. A milestone in human history had been reached.

Dr. J. Braxton Hicks

Braxton Hicks records with satisfaction an instance of a woman with a shoulder presentation in which he was able to substitute the head by "combined version" when the cervix was the size of a shilling. He had already,[18] in 1860, announced his "new method" of bipolar version and had published further details in a monograph in 1864[19]. In the treatment of placenta praevia, particularly in domestic midwifery, this procedure was a most valuable stand-by for half a century and must have preserved the lives of many mothers, in many countries. It is interesting that when announcing details of his "new method" he claims for it, among other advantages, that it is not necessary for the accoucheur to "bare his arm" and the diagrams illustrating the article show the arm of the operator clothed in the sleeve of his coat beyond which his starched shirt cuff protrudes. This was a few years before Lister's antiseptic principles were enunciated, patients were still seldom anaesthetised and the doctor refrained from any action, such as removing his coat which might alarm or offend the modesty of his patient. Twenty years later he laments[20] that bipolar version for placenta praevia was never popular in Great Britain although the method was extensively used in Russia, Germany and elsewhere in the world. In this view he was unduly pessimistic. Herman's advocacy, reinforced by the famous epigram "early version, slow

extraction, antiseptics" restored the popularity of bipolar version among British obstetricians.

Dr. J. Braxton Hicks, M.D., F.R.C.P., F.R.S., was active on the Guy's Lying-In Charity for twenty-four years. His contemporaries spoke of him as a man of tireless energy who inspired the affectionate regard of all his colleagues. He must have been endowed with a peculiar talent for accurate observation. He was made F.R.S. on account of original researches in botany. In Obstetrics his name is still attached to the painless intermittent contractions of the pregnant uterus which he was the first to describe in 1871[21].

He was not only a man of unusual intellectual attainment but he must have retained his physical stamina beyond the normal span. After retiring from the Staff of Guy's at the age of 60 he started a new career at St. Mary's Hospital and continued to dominate the activities of the Obstetrical Society of London. In this Society's Transactions he was the author of 50 papers over a period of 40 years.

The fifth decennial report appeared in 1875[22]. Henry Oldham had retired in 1868 at the age of 53: John Jones Phillips held the post of Assistant Obstetric Physician for only four years before his premature death in 1874. His successor was A. L. Galabin and it was he who assisted Braxton Hicks to produce this analysis of the twelve year period which had just closed. The report dealt with 23,591 deliveries—an average of 1,966 a year.

The main features were:—

A stillbirth rate of 4.08% which was an improvement as compared with previous reports and a maternal mortality rate of 4.4 per thousand. This was higher than the remarkably low rate of just under 3 per thousand recorded in the Fourth Report. But the authors consider it a satisfactory figure and quote Matthews Duncan who had calculated a probable rate of 8 to 10 per 1,000 in the general population. The forceps rate had increased, with benefit to the patients, and the author's remark that it is "very small by the standard of modern practice". The long forceps of Barnes had been used in protracted labour where the child's head was at or above the pelvic brim. Fifteen children had been saved and only two lost: all the mothers recovered. Version and extraction had previously been the usual practice. In placenta praevia version "by the bipolar method in almost all cases" was now the method of choice. Out of 41 mothers with this variety of antepartum haemorrhage six died and thirty-one children were stillborn, only 10 surviving. There is reference to four attempts at the transfusion of blood, none attended by success, but the intra-venous injection of saline by means of Aveling's syringe gave good results.

The Sixth Decennial Report was presented in 1888[23] by A. L. Galabin and Peter Horrocks.

A. L. Galabin

Alfred Lewis Galabin was also a man of brilliant intellect. At Cambridge he was a wrangler and the following year achieved a First Class in the Classical Tripos. He was made a Fellow of Trinity College but he decided to make medicine his profession.

He entered Guy's as a student in 1869 and was appointed Assistant Obstetric Physician in 1874. It was said of him that his popular textbooks on Midwifery owed much to the perfectly original statistics which he derived from the work of the Lying-In Charity and to his mastery of the mathematical problems involved in the transit of the foetus through the maternal birth canal. His biographer, Alban Doran[24], mentions his quiet and unostentatious manner but he was one of the first to develop radical surgical methods in the treatment of serious pelvic disorders The Sixth Report now under consideration, covered the 10 years between 1875 and 1885. Numbers had increased to an average of 2,591 cases a year.

A satisfactory decline in the maternal death rate was disclosed. In 25,489 cases attended, 84 mothers had died, or 3.4 per 1,000. The comparable figure for the previous 12 years was 4.4 per thousand. The improvement was attributed to "the extended use of antiseptics" but sepsis still accounted for over half of the deaths. Forceps had been applied more frequently in about 1 per cent of cases. Barnes' long instrument was usually employed but it is recorded that axis-traction forceps were successful in a few instances in which the older instrument had failed to secure delivery.

The cases in which forceps were used are set out in tabular form with columns for age, parity of mothers, duration of labour, position of the child's head and outcome. In eleven of these 274 cases of protracted labour with threatened obstruction the mother died.

Chloroform seems to have been administered only in about 5 per cent of the cases. Placenta praevia was still a serious menace to the life of mother and child. Fifty-one cases had been treated with a maternal mortality of 17.6 per cent and a stillbirth rate of 66 per cent. Two mothers had died undelivered.

Horrocks expressed the opinion that the best treatment of placenta praevia was to plug the cervix with a Barnes' hydrostatic lag, which was replaced by a larger size when necessary, and to deliver with forceps. Braxton Hicks' more conservative method had temporarily fallen from favour. A number of annual septennial and decennial reports on the Charity in the first fifty years of its existence have been reviewed. Reference has been made to the steadily increasing number of women attended and certain indices of efficiency, the number

of maternal deaths and of dead born children. When these figures are set out in a table a better idea can be obtained of the progress achieved in half a century.

Years.	Number of deliveries.	Maternal deaths per 1,000.	Stillbirth ratio per 100.
1833–34	174	—	8.6%
1834–35	478	—	7.1%
1833–40 (7 years' average) ...	1,010	7%	5.6%
1840–48 (7 years' average) ...		8.1%	8.1%
1833–55 (21 years' average) ...		7.0%	5.2%
1854–63 (9 years)	1,600	2.94%	4.6%
1863–73 (10 years)	1,960	4.4%	4.08%
1873–85 (12 years)	2,591	3.4%	3.84%

After the last report published in 1888, no further periodical reviews of the working of the Charity were published but details are available in a series of leather-bound ledgers into which successive clinical clerks or "Charities" diligently entered the names and addresses of mothers and particulars of the births attended. The numbers attended continued to increase. In the last decade of the century the yearly figure was never less than 3,000 and finally a total of nearly 4,000 a year was reached. It is not possible to make an accurate estimate of maternal death rates or foetal loss because it is obvious that more mothers were being transferred to hospital for treatment and the ward reports are incomplete. Sporadic sepsis still took a large toll and deaths from haemorrhage in childbed occurred not infrequently. In 1897 the Court of Committees[25] approved plans for the reorganisation of the Obstetric Department forwarded by the School Council. The Governors had already decided to open a combined Gynaecological and Obstetric Ward which was to be named Queen Victoria to commemorate the great Queen's Diamond Jubilee. A Registrar and Tutor, who must reside in the immediate neighbourhood of the hospital, was appointed at a salary of £40 a year. It was also conceded that the Assistant Obstetric Physician should no longer be obliged to live within one mile of the hospital after five years' service. The honorary Staff was increased to two full Obstetric Physicians and one Assistant and the "Charities" (now named Resident Obstetric Officers) were increased in number to four. It was also laid down that each of the four R.O.O's. should in turn undertake for six weeks the care of pyrexial maternity cases exclusive of any other work.

The new Queen Victoria Ward was at last occupied by the Obstetric Department on January 1st, 1899: 26 beds were allocated to gynaecological cases and eight beds to midwifery cases. Provision was also made for the accommodation of septic puerperal cases in the

"Guy's Attics" in Patience Ward.

The obstetric beds were kept almost exclusively for emergency admissions and for a few cases in which complications were anticipated. It was still true that childbirth was less menaced by sepsis in the humble Borough home than in a hospital.

This brief review of midwifery in the Lying-In Charity during the nineteenth century is in the main derived from the reports of the Physicians in charge published in the Guy's Hospital Reports. No one reading these reports at length can fail to be impressed by the scrupulous care shown by the authors in the preparation of their analyses. And no Guy's man can fail to be proud of the contributions which these obstetricians made to the science and art of their branch of Medicine.

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NOTICE

Guy's Science Club

The Annual General Meeting of the Science Club will be held on Tuesday, 26th May, at 4.45 p.m. in the Staff Common Room.

Tea will be served at 4.30 p.m., and a cordial invitation is extended to all members of the Teaching and Research Staffs of the Hospital and Schools.

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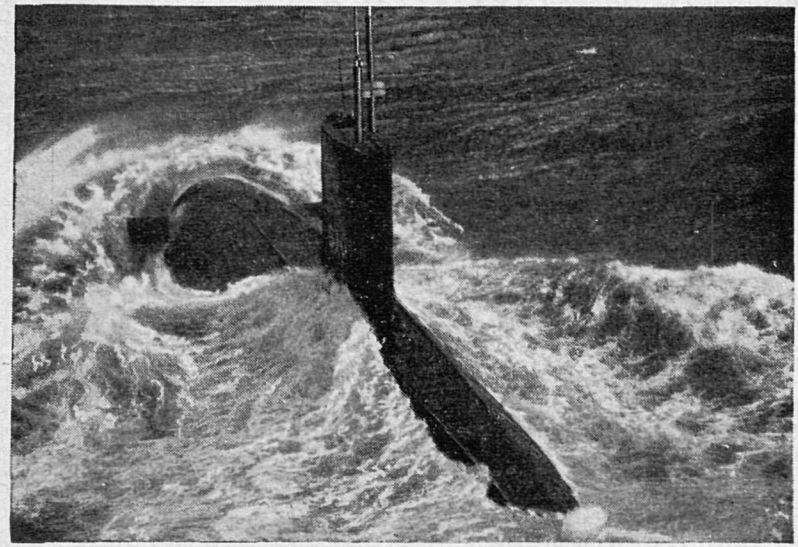

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HOSPITAL INFORMATION

APPOINTMENTS VACANT

GUY'S HOSPITAL, S.E.1.

Applications are invited for the post of ***Senior Registrar in Thoracic Surgery,*** with duties to commence as soon as possible. Application forms are obtainable from, and should be lodged with, the Superintendent, Guy's Hospital, London, S.E.1, not later than **26th May, 1964.**

GUY'S HOSPITAL, S.E.1.

Applications are invited for the post of **Junior Registrar in the Department of Ophthalmology** with duties from 1st June, or as soon thereafter as can be arranged, until 30th September, 1964. Application forms are obtainable from and should be returned to the Superintendent, Guy's Hospital, London, S.E.1, not later than **25th May, 1964.**

PASS LIST

CONJOINT BOARD

FINAL EXAMINATION, L.R.C.P., M.R.C.S.

April, 1964.

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NURSING NEWS

Entered

Sister A. Frost to Relief Night Duty.

Sister P. Lawrence to Nuffield House.

Sister A. Lindemann to York Clinic.

Sister C. Taylor to Esther.

Staf Nurse M. Chandler to William Gull.

Staff Nurse D'Arcy to Nuffield A.

Staff Nurse Longshaw to Surgical X-ray Theatre.

Staff Nurse M. Stevens to Out-Patient Department.

Staff Nurse Udall to Nuffield B.

Staff Nurse P. Mulford to Evelina Hospital.

Staff Nurse P. Ware to Evelina Hospital.

Staff Nurse J. Smathers to Theatres.

Left

Sister Charles from Night Duty.

Staff Nurse Jeffs from Out-Patient Department.

Staff Nurse A. Rogers from Out-Patient Department.

Staff Nurse D. Finlayson from Nuffield A.

Staff Nurse Joy from Casualty.

LIBRARY NEWS

DEPARTMENT OF PHYSIOLOGY

A Journal of Applied Physiology, Volume 15, 1960, has been missing from the Library of the Department of Physiology, Guy's Hospital Medical School, for some months, and has been requested by many readers. It would be much appreciated if this Journal could be returned to the Department as soon as possible.

DEPARTMENT OF PHARMACOLOGY

We have lost a few bound journals from our department library The missing journals are as follows:—

Recent Progress in Hormone Research, 1955, XI.
Recent Progress in Hormone Research, 1956, XII.
Pharmacological Review, 1950, **2.**
Endocrinology, 1952, **50.**
Acta Endocrinologica, 1951, **7.**
Acta Endocrinologica, 1954, **17.**

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GUY'S HOSPITAL GAZETTE

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30th May 1964

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Editors *T. C. Davis*
B. H. Hicks

Sports Correspondent *N. J. Knott*

Guy's Hospital, London

PASSIM

No Particular Place to Go

The week-end headlines have been smouldering with a self-righteous indignation. The so-called sawdust Caesars and teenage hooligans are perhaps an exaggerated reaction of a section of society to its own sense of boredom and frustration. By calling them names and sending them to gaol one effectively isolates them further from a community which they have enough difficulty already in contacting, let alone existing within. No doubt the risk of a stiff fine or gaol sentence will be grand bait enough for some, but an overall sentence of excommunication can only do harm. Not only should means be found to deter without glamourising (what about working for Oxfam?) but also one should ask why have these outbreaks occurred? Certainly there has always been petty rivalry and gang warfare, even in the highly mechanized fifties, but it has never before reached such glorified proportions. For this our society must take some blame. Professor Tawney said, many years ago, that before a system could be changed, then man's heart must also change. There can be few times when this has seemed more applicable.

Thinking along these lines one sidetracks a little to look at a population of students at somewhere like Guy's; to look at their dress for instance. The preclinical student of 1964 is vastly more influenced than his counterpart of the forties or early fifties by advertising and current trends; it is so much more widely employed and professional. There will always be for them the difficult line to draw between Guy's, primarily a hospital, and Guy's a part of a university. One should not sneer at sweaters for lectures but a patient will judge the profession not only by its practitioners but also by the people he will see in hospital who will become his practitioners in a few years' time. This must be recognized by clinical students. Temperance is perhaps a good thing to learn young; but not too young.

The Library

After some considerable period of persistent requests, the Wills' Library was opened until later in the evenings and clinical students were asked to supervise. They are also paid for this privilege. Of late, however, their position of authority has been taken very much for granted and on many occasions no one has arrived for his duty night. This may jeopardise other people's opportunity to work and will certainly thin the lining of their own pockets. A pity for both.

The Dentist at Guy's

It is not uncommon for editors to hear complaints of neglect of special interests, and Guy's editors are probably hardened to cries from dental students about the medico-surgical bias of the *Gazette*. Such a bias is to a certain extent inevitable, as a reflection both of the sheer proportions of personnel in the hospital and the particular professions of the editors, but it is not wholly excusable. As far as the community life of Guy's is concerned, the "dentics" are a vital element, as students prominent in the activities of all sorts of Clubs, as staff renowned throughout the dental profession both for their past and their progressive attitudes to present problems. The name of Guy's acquires honour in other fields as well as those of Hodgkin, Addison or even Keats, and the fact that Thomas Guy wore no dentures is no reason for condescension. So far as is known, nor did he wear a truss!

Medical students, in particular, should be encouraged to take a more active interest in dental problems and techniques of solving them, and some lecture-demonstrations on a voluntary basis might achieve this more effectively than the present series of lectures. In this issue appears the first in a series of articles on Dental Research at Guy's; we hope that these short articles will gain interested readers from both sides of the dental chair.

GUY'S DIARY

JUNE

1st	M.	1.00	Dr. McARDLE. Clinical Lecture. *Sensory Symptoms and their Interpretation.*
9th	T.	1.00	Mr. CLARKSON. Clinical Lecture. *The History of Plastic Surgery in England.*
11th	Th.	1.00	Dr. HOARE. Clinical Lecture. *Radiology of the Visual Pathways.*
11th	Th.	1.00	Professor G. N. DAVIES. University of Queensland. Dental Clinical Lecture. Dental Theatre. *Resistance to Dental Caries.*
12th	F.	1.00	Mr. BRAIN. Clinical Lecture.
16th	T.	1.00	Dr. BISHOP. Clinical Lecture.
18th	Th.	1.00	Mr. LAWRIE. Clinical Lecture.
19th	F.	1.00	DAME HONOR B. FELL. Clinical Lecture.
22nd	M.	1.00	Mr. SALMON. Clinical Lecture.
23rd	T.	1.00	Dr. VAUGHAN. Clinical Lecture.
25th	Th.	1.00	Mr. GLOVER. Clinical Lecture.
26th	F.	1.00	Miss. AILEEN WARD. Clinical Lecture. *John Keats, the impact of his medical training on the flowering of his poetry.*

Professor John McMichael, M.D., F.R.C.P., F.R.S., will deliver the Carbutt Memorial Lecture at 5.0 p.m. on Tuesday, 23rd June, in the Physiology Theatre. The title of the lecture is " The Management of the Heart in Failure".

DENTAL RESEARCH AT GUY'S

1. Department of Conservative Dental Surgery

Investigations are being performed to study the reactions of materials for pulp capping and root filling on the dental pulp and periapical tissues, in order to assess materials in current use and to test new materials.

The effects of different techniques and materials can be studied in man by clinical methods such as subjective symptoms, vitality tests and radiographs, but the best method of study is by the preparation of histological sections. The extraction of successfully treated teeth is difficult to justify, and so human histological material is hard to obtain. For this reason experimental animals have been employed, and it is then possible to compare the reactions of various materials under controlled conditions.

Rat molar and incisor teeth have been used to investigate the reaction of the pulp to various materials. Due to their small size it is not possible to instrument the root canals of these teeth, and therefore an animal with larger teeth such as the cat has been used to ascertain the effects of root filling materials on the periapical tissues.

It has been found that calcific repair of the pulp in rat molars by the formation of bridges may occur under a wide variety of materials. A well-formed bridge of tubular dentine is shown in Fig. 1. This result was obtained 33 days after covering the pulpal exposure with zinc oxide and eugenol and amalgam. Considerable damage to

Figure 1

Dentine bridge formed after capping exposed rat molar pulp with zinc oxide and oil of cloves (x. 45)

and necrosis of the pulp in the pulp chamber is seen, but the pulp tissue extending into the pulp cornu and down the root canal has a normal appearance. If contamination with saliva occurs either at the time of operation or because of failure of the occlusal filling, then the pulp usually dies and a periapical abscess may form. Failure of the occlusal filling is followed by or is due to disintegration of the crown of the tooth and in course of time the roots are gradually exfoliated. The formation of a calcific bridge does not necessarily indicate that complete repair has occurred. Further necrosis of the pulp after a bridge has been formed has been observed and was probably due to leakage or loss of the occlusal filling. It has therefore become obvious that adequate sealing of the pulp is a prime requisite for a satisfactory result, the actual material applied is probably of secondary importance.

The removal of a vital dental pulp or a pulpectomy produces a marked inflammatory reaction, and this accounts for the tenderness sometimes experienced by patients following this operation. This same phenomenon has been observed in the cats' teeth which have been studied. The reaction is most marked where the root canal has been left completely empty after operation except for the sealing of the occlusal opening into the root canal with amalgam. This feature is shown in Fig, 2 which shows the apex and periapical tissues of the canine tooth of a cat two weeks after extirpation of the pulp. The inflammatory reaction may persist for a long period. It has been observed five months after the insertion of a root filling, though with some materials, particularly N2 root canal sealer (Fig. 3), it is unusual to see any inflammatory reaction after two weeks. The cause of the long-standing residual inflammation is not fully understood. It is probable that it is due to necrosis of the pulp tissue in the small accessory canals which are plentiful near the apex. Although, on occasions there has been slight resorption of the peri-

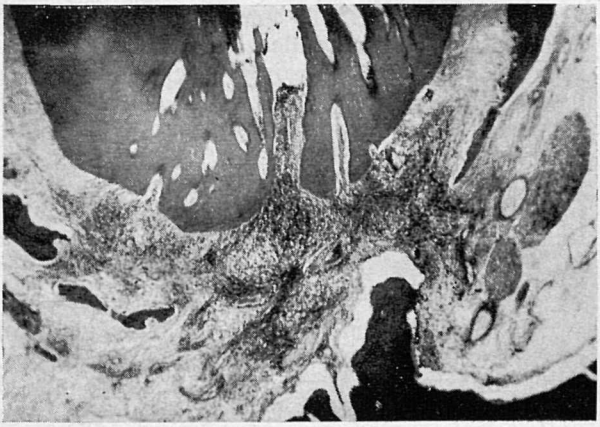


Figure 2

Inflammatory reaction present 2 weeks after removal of pulp from the canine tooth of a cat. (x 25).

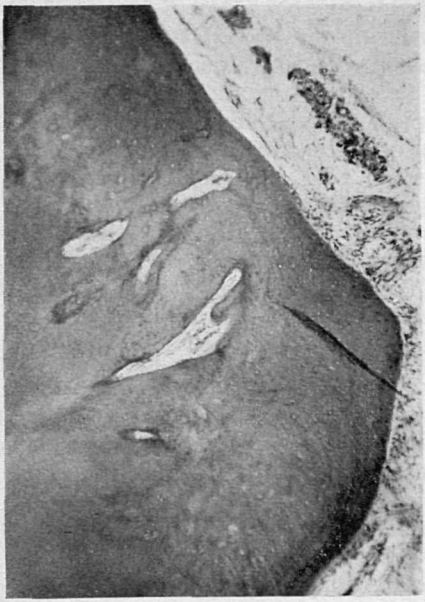


Figure 3

Normal periapical tissues 2 months after root filling a canine tooth of a cat with N2 Root Canal Sealer. (x 55).

apical bone, abscess formation has not occurred and eventual resolution of the inflammatory reaction is likely to occur.

The purpose of these experiments is to try and produce better materials for pulp conservation and root filling than are at present available.

A. H. R. ROWE.

A Possible Cause of Post-Operative Pain from Dental Restorations

Very large numbers of fillings and inlays are made by dentists and very few patients actually complain of subsequent pain. Of those who do, some can be persuaded to wait for a week or two until it disappears, for others the pain is severe and persists. In this event it is usual to remove the filling. Some of the teeth so treated are found to have exposed pulps, others have not. Where the pulp is exposed, appropriate root treatment or extraction is advised, where not, a dressing of zinc oxide and oil of cloves for a few weeks, followed by filling by normal methods, is usually successful. If questioned, it is found that a significant proportion of those who do not complain do in fact, have slight pain or sensitivity for a few hours, perhaps 24 or 36 hours, which then disappears.

It is fair to conclude that a small but definite number of teeth cause severe and persistent pain, the reason for which is largely a matter of surmise. Many explanations are offered from time to time. There is no certainty either, what is the cause of the transient sensivity which is a fairly common sequel to the making of fillings. While it is

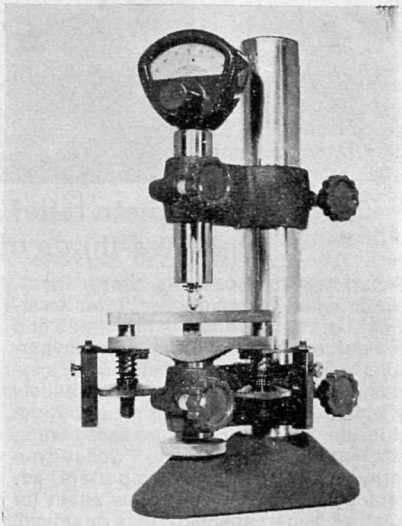
usual for this pain to be associated with thermal changes, it is obviously not due solely to thermal effects. If it were, the cure would not be so rapid. The thermal stimulus is only effective in producing pain in a tooth which is already hyperaesthetic due to another cause.

It was thought possible that one factor in either or both types of pain might be the expansion of amalgam on setting, if not the normal expansion, then possibly the much larger, delayed expansion caused by water contamination. If this can cause pain then so, it would be expected, could an ill-fitting gold inlay or crown. Experiments were devised which would show on the one hand, whether dilation of the cavity with consequent stressing of the tooth substance would actually produce pain, to measure the forces, and on the other hand, whether the forces produced by an amalgam filling or gold inlay could be of an order to cause such a pain.

Experiments on teeth prepared for filling were carried out with an instrument which applied a measured force to the opposite walls of the cavities. Loads of up to 5,500 grammes were used. Out of a total of 91 teeth so tested, 43 resulted in a sensation of pain. All cavities tested had been prepared without local anaesthetic and were subsequently filled with normal materials. A few teeth required forces as little as 3,000 grammes to induce pain (Robinson, 1964).

The force developed by amalgam which expanded on setting was measured by observing the expansion of specimens setting under progressively increased loads. The experiments were to be continued until no measurable expansion took place; in practice this value was very difficult to ascertain. The size of the mould was important and was chosen to be about equal in area of cross-section to the wall of a mesio-occluso-distal cavity in a large molar tooth. Normal expansion of the specimen, whose effective height was 6.25 cm. was reduced to 2 microns by a load of 2.5 kg. It was thought that this would indicate that the normal setting expansion of amalgam is not capable of causing much more than 7.4 kg./sq. cm. on a tooth cavity wall.

Amalgam which contained too much mercury as a result of inadequate condensation, expanded greatly when allowed to do so freely but when under restraint, as in the experiment described, it required only 2.5 kg. to reduce it to below 2 microns.



Mikrotator apparatus for determination of force exerted by expanding amalgam.

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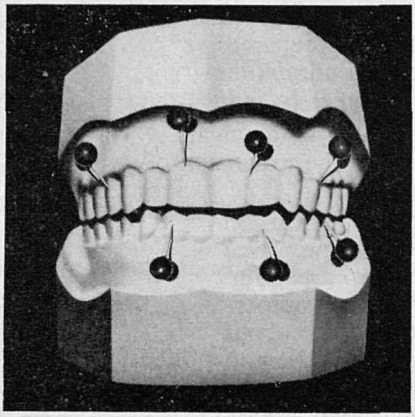

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Where the mix was deliberately contaminated with water much greater forces were found from the expansion which resulted. Using the same mould as before, the material continued to expand even under loads of 9.5 kg. It seemed that the nature of the expansion was such that it could develop a force of 28 kg./sq. cm. or more.

Simple calculations and experiments with models using a polariscope indicated that ill-fitting inlays or crowns, loose or undermined fillings are likely to result in very large forces (100 kg. or more) on the cavity walls due to a wedging effect. An inlay which has a protuberance on one side will, if forced into the cavity by the dentist or by the patient biting on it, cause such a wedging.

The experiments provide strong evidence that post-operative dental pain can result from ill-fitting inlays and from excessive expansion due to water contamination. While it is possible that a small number of subjects are capable of feeling pain as a result of the normal expansion of amalgam, it is not thought that this is a very likely cause. It must be remembered that there are several other potential causes which have not been examined in these experiments.

A. D. ROBINSON.

REVIEW

VENEREAL DISEASES.

by Ambrose King and Claude Nicol. Cassell. 1st Edition. Pp. 301. *Price* 50*s*.

Most students would be surprised that a book of this size could be written on venereal diseases, which is perhaps a reflection on the inadequate knowledge of students on these diseases. The book is typically text-book in style, but as such is lucid and readable, if not entertaining. The illustrations are vivid and informative and can be highly recommended. The only criticism is that they could have been inserted in the appropriate chapters rather than being grouped together in few sections. Each disease is dealt with separately and syphilis is split up into chapters on neurosyphilis, cardiovascular syphilis and congenital syphilis, each chapter contains an excellent section on differential diagnoses. The chapter on Reiter's disease is clear and informative and stimulates interest in the possible connection between this disease and ankylosing spondylitis. The inclusion of Trichomonal infection as a venereal disease will not be accepted by all, but the fact that up to 50 per cent. of gonococcal infections have coincident trichomonal infection is perhaps sufficient reason in itself. The chapter on the Public Health Service in the prevention of venereal diseases is interesting and topical considering the recent report by the B.M.A. The average student would benefit from reading this book, even if he does not purchase it.

FREDERIC WILLMOTT.

NOTICE

A.G.M. Catholic Society

The A.G.M. of the Catholic Society will be held at 5.30 p.m. on Tuesday, 2nd June, in the Committee Room of the Students' Club.

Will all members and anyone who is interested please attend.

PROFILE

Bill Bayley

From the age of 14 Bernard Tilstone Bayley has worked in post-mortem rooms, and even at this tender age he realised that he must be impersonal and without sentiment in his work. 1938 saw his enlistment to the Army where he joined the 6th Airborne Division as a paratrooper; his job was to set up advanced surgical units and act as an operation room assistant. He saw conflict on all major fronts. Throughout his life he has been approached by an inexplicable presence, even the medium told him that he was a person of supernatural sensibility and after all, it is *his* province. It's no wonder that he subscribes to a fatalistic viewpoint which regards supernatural experience in an open and unbigoted way. He respects a force with which he lives in a sort of symbiotic relationship. The spiritual advice helped him most when, as a medical orderly parachutist, he was three times advised to change his jumping sequence or method and on each occasion the two men with him were killed and he alone survived. At the termination of world hostilities he went to Saudi Arabia on a military mission, where he was in charge of theatres, dispensing, post-mortems and general hygiene. His career in the Army came to an end when he developed meningitis following a mastoid infection, and he was invalided out of the service. After convalescence he tried his hand at electrical engineering, but after 4½ years he decided to return to his old profession and took a post in the Anatomy department at Guy's in 1958.

He knows a great deal about the history of embalming and believes implicitly in its original purposes of cadaveric identification and preservation so that homage may be paid. He is very critical of modern fraudulent embalming practices and commercialisation. Embalming should only be performed on corpses for storage, transportation or medical purposes and not, as it often is, as a means of profiteering from impecunious relatives. He finds too much class distinction amongst embalmers and technicians. As with all distinction of this type, it is unmerited. He is also concerned with the teaching of the young entrant to his trade; he feels that youth does not have time to think or see its objective distinctly and he wants to organise a school of advanced training for the betterment of anatomical preservation.

Bill Bayley is a perfectionist who wll not accept bigoted tradition easily. He has completed a series of manuals on embalming; the first is to be published in the coming months. He does a compulsory three hours' writing every day on an autobiographical novel to be entitled " Living With the Dead". Mr. Bayley is soon to leave Guy's and we will lose a man whose amiable and helpful personality has endeared him to many students.

PHARMACLASSICA

Chinchona

One of the first South American drugs noted and brought into use by the Spaniards was Chinchona. There is no proof, however, that the bark of the Chinchona tree was employed by the aborigines before the Spaniards arrived. Most of the native tribes, in fact, to this day eschew any dealing with the drug and there are indications that the original inhabitants were completely unaware of its properties. The discovery of the drug is, by legend, attributed to a Jesuit priest who was attacked by an intermittent fever while travelling in Peru and was cured by the administration of a decoction of the powdered bark. Hence the names Peruvian or Jesuit Bark. About eight years after the reputed discovery (circa 1630), the wife of the Viceroy of Peru, Countess of Cinchon, was cured of a "tertiana" fever by the same means. So thankful and impressed was she with the cure that she caused great quantities of the drug to be collected and distributed to the sick poor. Thus it became known as the Countess's Powder. The powder was introduced into Europe as a febrifuge about 1640, but remained the virtual monopoly of the Jesuits for another ten years or so. In 1678 a Robert Talbor was appointed Physician-in-ordinary to Charles II and the following year, the King being ill of a tertian fever at Windsor, cured His Majesty with Peruvian Bark, which had been given official recognition the previous year by inclusion in the London Pharmacopoeia under the name of Cortex Peruanus.

By the end of the 18th century the demand for the bark was so great and the reckless methods of collection had so depleted the forests that the tree had completely disappeared from many parts of South America. The usual method of collection was to fell the tree and strip the bark, as the trees were destroyed so the collectors had to travel farther and farther into the jungles and more and more difficulties were experienced in transporting the cut bark to the market. Cultivation in more accessible areas of South America and in Europe met with little success until the Dutch introduced the trees into Java in 1854. The East India Company was also interested as they were spending over £25,000 a year on importing bark and quinine to combat malaria in India. Despite opposition by the Bolivian Government and the Dutch planters, seeds and seedlings were obtained and taken to India where, under careful cultivation in selected areas, successful plantations were established. Prior to the last war practically all the Quinine and Quinidine produced from Chinchona came from cultivated trees mainly in Java.

The chief use of quinine is in the prophylaxis and treatment of malaria; the other principal alkaloid from the bark is less efficient in this respect but finds application in cardiac arrhythmias. From the use of quinine there has been developed a number of synthetic anti-malarials which have less side effects and are more effective than

quinine in nearly all forms of the disease, and also more effective in preventing the transference of the infection from mosquito to man. The production of synthetic anti-malarials was greatly stimulated by the last World War when practically all sources of supply of Chinchona were cut off by the Japanese conquests in South East Asia.

The Platt Report on The Welfare of Children in Hospital

At the second national conference of the Mother Care for Children in Hospital Association (M.C.C.H.) the conference theme was the Platt report and its implementation.

The M.C.C.H. Assoc., which came into being some two years ago through the initiative of mothers of young children, is making its existence felt in no uncertain way. Its members are not handicapped by professional etiquette, by red tape or by the fear of making themselves unpopular, and they pursue their aim with a belligerent singlemindedness which commands sincere admiration.

Although the Platt Report contains more than 70 recommendations, the Association have so far concentrated on only two of them: Unrestricted visiting of children in hospital and admission of mothers with their pre-school children or with children for whom sudden separation from mother might mean psychological trauma that later might prove irreversible.

The Association have already had considerable success, but they are still able to produce disturbing figures to show that there are as yet many sick children in hospital for whom visiting arrangements are far from the ideal.

In her opening remark the chairman stressed the need to recognise mother and child as one single unit—a concept taught so well by Dr. MacKeith and others many years ago at Guy's.

Many of the 1,500 members of the M.C.C.H., were at the conference, but there were also many others whose interest and co-operation the Association had aroused and enlisted. Those present included senior representatives of the Ministries of Health and Education, the British Paediatric Assoc., and the Assoc. of British Paediatric Nurses; the Royal College of Nursing, the Tavistock Clinic; the National, Medical and Nursing Press; Research workers and psychologists, Health Visitors and teachers. An impressive gathering for a mid-week morning!

The three speakers, the Medical Superintendent of one, and the House Governor of another famous children's hospital and the President of the Assoc. of British Paediatric Nurses were all in full sympathy with the demands of the mothers. They agreed that there were still a considerable number of children's wards (particularly in general hospitals) where free visiting was not allowed or where the interpretation of the recommendations was far too narrow. It was thought that Hospital Management Committees, Boards of Governors, Matrons and many doctors were too complacent and should be made to work actively and untiringly towards truly unrestricted visiting for parents. They made a plea for General Practitioners, Teachers, Health Visitors, and others concerned with child care to investigate their local children's wards, to press for better arrangements and to give sound and well informed advice to mothers of young children. All three speakers also stressed that a great deal was being done for sick children and that one had to judge every situation on its own merit.

Home nursing schemes, Hospital Schools, Units large enough to cater for the total needs of the child, facilities for the care of sick adolescents, separate Casualty and Out-Patient accommodation for children, and above all, paediatric specialists were needed, and it was important to make sure that those needs were going to be met in the Minister's future plans.

The great value of the training for the Register of Sick Children's Nurses was stressed, as only by preparing suitable nurses to care for sick children could the best possible understanding and service for the future be safeguarded.

At question time there was lively and intelligent participation from the floor.

M. A. DUNCOMBE.

CORRESPONDENCE

Shakespearian Entertainment

SIR, Once again I humbly pray the use of your correspondence column in order that I might bring to the notice of all those interested in commemorating this important year and all our esteemed audiences that the Theatre Club and Music Club of Guy's Hospital will, at 7.45 p.m., on Monday, June 1st, and Tuesday, June 2nd, 1964, present in the Physiology Theatre a Shakespearian Entertainment. The performances will consist of many items of plays and sonnets by the Bard and also extracts of writings and music of his time. A very large cross-section of the Club's talents will be exhibited, and we can ensure our patrons a very enjoyable and professional production. We hope that as many as possible of your readers will find themselves able to pay homage to the greatest playwright of all time.

I would also like to give notice to the effect that the Theatre Club will hold its Annual General Meeting in the Students' Union on Thursday, June 4th, at 5.30 p.m. The meeting will be followed by a Wine and Cheese party. All Club members and all those wishing to join the Club are invited to attend.

Yours, etc.,

NICOLAS H. FLOWER,
Hon. Sec., Theatre Club.

B.M.S.J.

SIR, More than three-and-a-half centuries ago, the Elizabethans gauged the educational status of a man by his writings, not by his spoken words. With the shortage of time even in those days, and often through lack of opportunity, the written word was the most efficient means of spreading knowledge. It was and is the most practical method of a student repaying his mentors by materially contributing to the upward spiral of knowledge, which is, after all, a major aim of any educational project.

One only has to spend a few minutes in a medical school library to be overwhelmed by the mass of medical literature that is poured from the presses yearly, monthly and weekly. Nevertheless, one cannot help noticing the paucity in more general journals in libraries that are supposed to cater for the inmates of an *educational* institution. As a result there tends to be a huge gulf between the subject as one studies it, and the broader aspects one obtains outside the medical school—a gulf that tendes to be bridged only by publications like the *Gazette*, and in a different way, *Pulse*.

As a supplement, and not a substitute—the field is too large for student publications to compete—to such local student publications, B.M.S.A. began the publication of a journal in 1946. This *British Medical Students' Journal* serves as a form for the qualified and undergraduate writer to entertain and enlighten the student, particularly in those aspects of his medical education which are not taught to him. It derives its articles mainly from a varying number of the 12,000 medical students of Great Britain, and provides the others with a selection of writings on history, travel, foreign medical practice, humour, and with a synopsis of recent events, comments, and developments in the field of local medical education.

The *Journal's* columns are open to any who wish to use them to the benefit of the medical student, even if that student is the author himself. It would be a welcome change if there were to be a greater interest taken in this publication, as indeed in others of its type, and if medical students took a more positive part in broadening their own education and perhaps that of others. After all, medicine is one of the best examples of the absence of the schism between Snow's Two Cultures.

Yours etc.,

D. STEPHEN ROBINS,
Editor, British Medical Students' Journal.

Renal Stones

SIR, Having just received the *Gazette* of April 4th, I would like, at this rather late hour, to comment on the account of the Combined Round dealing with renal stones. Mr. Kinder, in reply to a question by Dr. Trounce, states that he does not find sensitivity tests very useful. Perhaps he would be prepared to accept an alternative explanation for his apparent disenchantment with laboratory methods. Infections of the urinary tract, particularly those associated with anatomical abnormality or stone, are notoriously difficult to treat and eradicate. This is largely due to the persistence of inhibited but viable organisms in devitalized tissue or calcareous material, which may cause a relapse after withdrawal of the antibiotic. (Nesbitt et al. 1951). For this reason, every effort should be made to choose a bactericidal agent which will kill rather than inhibit multiplication. The limited value of bacteriostatic drugs of the tetracycline group has been recorded by Herrold (1951). Most broad-spectrum antibiotics are bacteriostatic in action, although Mr. Kinder appears to be prepared to treat an infection " energetically with a course of broad-spectrum antibiotic". He further states that blood levels are low during the administration of nitrofurantoin. Forty per cent. of this drug is excreted in the urine 6 hours after oral administration, and it appears in the glomerular filtrate in a state of stable supersaturation. No final proof is at hand that this substance is necessarily any less curative than antimicrobial agents producing high blood levels. (Richards et al. 1955).

The management of chronic infections of the urinary tract requires extensive and continuous laboratory control, and bacteria isolated should be tested against a wide variety of substances including colymycin and nalidixic acid. Combined therapy, using at least one bactericidal agent, as advocated by Stern & Elek (1955), may be the best approach to many of these difficult cases.

Yours, etc.,

K. F. ANDERSON.

The Institute of Medical and Veterinary Science,
Adelaide,
South Australia.

Herrold, R. D. (1951) J. Urol. **66**. 612.
Nesbitt, R. M., Adcock, J., Baum, W. C. and Owen, C. R. (1951) *Ibid.* **65**. 336
Richards, W. A., Riss, E., Kass, E. H. and Finland, Maxwell. (1955) Arch. Intern. Med. **96**. 437.

UNICEF

SIR, During the period January to March, 1964, the sum of £113 13s. 4d. was collected at Guy's for the UNICEF* project in the Indian state of Uttar Pradesh. This sum includes £6 14s. 9d. raised at a concert given by the Music Club. Since the scheme started last October a total of £231 10s. 5d. has been forwarded to the U.K. Committee for UNICEF, and I have been asked by the Secretary to convey the sincere gratitude of the Committee to all who have contributed so generously.

Yours, etc.,

D. J. ANDERSON.

*United Nations Children's Fund.

Missionary Exhibition

SIR, May I draw the attention of your readers to a Missionary Exhibition organised by the Christian Union, to be displayed in the Quiet Games Room of the Students' Club, on Tuesday 16th, Wednesday 17th, and Thursday 18th of June.

Details of the work of the various Guy's missionaries will be on display. On each of the three evenings one of the missionaries will be present to show films and talk about his work; details will be announced later.

Yours, etc.,

ANDREW WARIN

(*Missionary Secretary, Christian Union.*)

Guy's Hospital, S.E.1.

SPORT

CRICKET

Owing to bad weather, the season started a week late on May 2nd. Three first eleven games have had to be cancelled, and let us hope that no more are lost owing to rain.

The feature of the season so far has been some splendid batting by Hambleton, who scored 320 runs in his first four innings.

The second eleven started with two crushing victories over Lloyds Bank and R.D.H., and an excellent win against Honor Oak, where, after a good innings by Jones, Biggs and Reekie retrieved a seemingly impossible situation, the former scoring a hard hit half-century.

The senior side is a well-balanced one, but owing to the absence of MacGregor, the problem of finding a regular opening pair has yet to be solved.

Guy's suffered the first defeat of the season against Stoics C.C. Stoics, captained by Colin Smith, the Cambridge Blue, produced a strong side against the depleted Guy's ranks. After being dismissed for 130, which included another hard hit innings by Hambleton (39), Guy's never looked like dismissing the opposition and finally lost by seven wickets.

Over the Whitsun Bank Holiday, Fleet Street Strollers managed to hold on to a draw, their last pair being together with more than fifty runs needed for victory. The feature of this game was another hurricane innings by Hambleton, who was stopped at 97 from gaining his second century of the season.

The game against Reigate Pilgrims on Whit Sunday again proved an interesting one and the celebrations afterwards perhaps even more so. Biggs (47) and Appleby (49) provided the backbone of the Guy's innings, and the Reigate penultimate pair stayed together to rob Guy's of victory. Silk fielding at backward short-leg, caught a phenomenal left-handed catch from a hook which was otherwise travelling for four runs.

Crofton Park are the only club to have beaten Guy's for the last two seasons, so this was a particularly important match to win. At lunch, Crofton Park were 114 for 2, and it looked as though Guy's were in for a hiding; however, the lunch break seemed to clear the system of the previous evening's refreshments, and Guy's then proceeded to tear the heart out of the opposition batting, allowing them to score only another 84 runs in over two hours.

The main reason for this collapse was some fantastic fielding by Jones at backward short-leg, which would have earned him loud applause at Lord's. Taking three catches (including one which equalled Silk's effort on the previous day) and fielding brilliantly to throw the wickets down for a run out, new life was sparked into the side and Guy's were left to get 199 to win in 158 minutes.

Silk batted well against the guile of Pope to gain his first half-century of the season, but Guy's were falling behind the clock until Davoodbhoy reached the crease. In two overs he thrashed thirty runs and reached 50 in 32 minutes, leaving his side well within striking distance. The winning blow was left for the Captain to strike from the fourth ball of the last over, leaving Guy's victorious by two wickets.

In the Inter-Hospitals Cup, rain intervened, and the game had to be abandoned with Guy's batting and the total at 57 for 2 wickets. This game will be replayed on Saturday, May 30th, at H.O.P.

The 2nd XI, under the captaincy of A. Proctor, remain unbeaten. In the Junior Cup Competition the side beat the Westminster by 32 runs, which was an extremely good effort considering they were up against quite a talented side which included M. Morgan, whom some will recall putting in some fine bowling performances for Guy's in the past.

TENNIS

In the first match of the season against Shooters Hill, the side did not have a particularly enjoyable match by being beaten 0—9. Shooters Hill produced a side which could trounce most club sides; in fact, it was the one that reached the Final of the Kent Winter League Competition.

Against U.C.L. at Shenley, gale force winds were encountered, and after nearly being blown off the courts, the side suffered a narrow defeat 4—5. The elements again took a hand in the match against K.C.H., and here the match had to be abandoned owing to rain with Guy's leading 4—0.

Finally our old friends St. Thomas's were successfully wiped off the courts, and an 8—0 victory was recorded in this match.

HOCKEY

At the A.G.M. on 11th May, the following appointments were made for 1964/65:—

Re-elected: President: Prof. Butterfield. Vice-Presidents: A. J. Bridge, Esq., Prof. R. D. Emslie, Dr. G. W. Scott.

Elected: Captain: K. E. Haynes; Vice-Captain: A. Hirst; Team Secretary: J. Salomon; Match Secretary: J. Crafts; 2nd XI Captain: S. Rear; 3rd XI Captain: C. Lee; 4th XI Captain: D. Rylands; *Spirochaete Captain*: N. Turfitt.

Last year's secretaries, R. Pearson and A. Hirst, were congratulated on their excellent work, as were all the captains on the teams' considerable successes.

The gathering adjourned to "The Albert", Victoria Street, for the annual dinner, where 54, including guests from other hospitals, celebrated the winning of the Inter-Hospital Cups in a suitable manner which few can actually remember.

Reports and Results

CRICKET

GUY'S v. LLOYDS BANK

At Beckenham. Saturday, May 2nd.
Result: won by 4 runs

In the opening game of the season, Guy's lost the toss and were asked to bat on a soft wicket which looked as though it would give little assistance to the bowlers in the early stages. Appleby was dismissed with a delivery which rose sharply off a length and left him little chance of withdrawing his bat. Huins was then joined by Hambleton and these two began to take command of the situation, aided by some dropped catches. Hambleton, after one sighting shot, dispatched the opening bowler for six with a scorching drive over mid-off, and followed this with a four through the covers which left the fieldsman no chance. He was finally well caught in the covers from a lofted square drive after a hard-hit innings which certainly did not suffer from lack of practice. The batsmen then became bogged down and progress was slow, Davoodbhoy relieving the situation somewhat with a towering six. Knott received a nasty blow on the wrist in his first over, and little resistance was offered by the remaining batsmen, the side being dismissed for a meagre total which, however, proved to be sufficient.

Walter, as though well aware of the inadequate score, proceeded to tear the heart out of the opposition and dismissed the opening four batsmen at a personal cost of five runs. The decision of the opposition to use the heavy roller seemed to have put considerable life into the wicket and Walter, bowling at a lively pace, gave his side an excellent start, Lloyds being 17—4 in a short space of time. Walter, feeling the strain of being out of practice, was then replaced and the middle-order batsmen proceded to push the score along, and when Lloyds reached 109—7 the writing looked to be on the wall. However, the opening attack returned to the fray, and aided by two excellent catches by Appleby and Silk (having considerable time to think of the consequences), Guy's won by four runs in the last over of the day.

NIGEL KNOTT.

Guy's: 122. (G. Hambleton, 47).
Lloyd's Bank: 118. (M. Walter, 5—17).
Team: M. Appleby, R. Pinkham, T. Huins, G. Hambleton, D. Silk, S. Davoodbhoy, N. Knott (Capt.), J. Crafts, E. S. Price, R. Myall, M. Walter.

GUY'S v. HONOR OAK

At Honor Oak. Saturday, May, 9th.
Result: won by 3 wickets

Guy's won the toss and put Honor Oak in to bat on a soft wicket. Their opening pair started slowly but steadily, until Sutton dismissed both in one over. Another wicket fell quickly with a run out; Guy's then had to wait for another 70 runs before they claimed another wicket. This was due to a hard-hit innings of 52 by Cheeseman. Walter broke this partnership, and then he and Huins polished off the tail. Walter, bowling with fire and accuracy throughout, finished with 5 for 43.

Appleby and Silk opened the innings for Guy's and gave no cause for alarm until with the total at 13, both were out L.B.W. Huins and Hambleton then put on 34 before the former was out to a superb diving catch by the wicketkeeper. Myall and Powell-Jackson did not last long, while Hambleton continued to score freely. He reached a valuable and deserved half-century before being run out. Crafts was unluckily caught off a full-blooded sweep, which brought Price and Davoodbhoy together. By sensible batting, they made the 30 runs required for victory.

MIKE APPLEBY.

Honor Oak: 133. (M. Walter, 5—43).
Guy's: 134—7 (G. Hambleton, 58).
Team: D. Silk, M. Appleby, T. Huins, G. Hambleton (Capt.), R. Myall, J. Powell-Jackson, J. Crafts, E. S. Price, S. Davoodbhoy, M. Sutton, M. Walter.

GUY'S v. ASHTEAD

At H.O.P. Sunday, May 10th.

Result: won by 54 runs

Guy's lost the toss and were put into bat on a fine sunny afternoon. The wicket was dry and firm, and looked excellent for batting.

After losing three quick wickets, the Guy's innings was dominated by a fine Hambleton innings, with able support from Crafts, in a partnership of 91 for the fourth wicket. Hambleton was eventually fifth out for a superb 102 out of 156, his innings including four sixes and ten fours. His total time at the wicket was only 96 minutes.

The remaining Guy's batsmen contributed a few lusty blows before the innings was declared at ten minutes to five at 174 for 8 wkts.

Ashtead opened their innings brighty, but in only the second over one of the opening batsmen was run out by an excellent throw from Appleby, fielding at cover point, and striking down the bowler's wicket. Cheveley played some lovely shots which kept the Ashtead score moving with the clock, but Guy's obtained two more quick wickets. Cheveley was then joined by the Ashtead captain, and the score moved very fast while the latter was at the wicket. He, however, was well bowled by Knott, who throughout the innings maintained great hostility and accuracy. His final figures of 5—47 did not truly reflect how well he had bowled. When the score topped the 100 mark, for 5 wkts., the Guy's total looked well within Ashtead's capabilities, as there was no time problem. However, Knott again broke the threatening partnership, and soon afterwards Cheveley, who had held the innings together, was well caught by Appleby at the fourth attempt at extra cover. Banks, in a good spell, dismissed the tail, hitting the stumps on all three occasions.

Ashtead were finally out at a quarter to seven, leaving Guy's victors by 54 runs.

MIKE JONES.

Guy's: 174—8 dec. (G. Hambleton, 102).
Ashtead: 120 (N. Knott, 5—47).
Team: D. Silk, M. Appleby, G. Hambleton, M. Jones, J. Crafts, J. Powell-Jackson, I. Reekie, S. Davoodbhoy, E. S. Price, P. Banks, N. J. Knott (Capt.).

ATHLETIC CLUB

UNIVERSITY OF LONDON ATHLETIC CHAMPIONSHIPS, 1964

On 1st and 2nd May, a Guy's team, somewhat depleted by the F.A. Cup Final and several minor injuries, took part in the 48th Annual Athletic Championships of the University of London at Motspur Park.

The team rose admirably to the occasion and succeeded in gaining 3rd place out of 31 possible Colleges competing. This excellent effort was the result of good all-round performances by all competitors together with enthusiastic support from fellow team members.

Special mention must be made of I. Morgan and D. Osborne. Morgan, a fresher, demonstrated his versatility and fitness by winning 440 yds. hurdles in 58.3 secs., 2nd place in the 220 yds. hurdles, and 4th place in 440 yds. Osborne threw a personal best distance of 126ft. 8ins. in the discus to gain 2nd place. Guy's had 3rd and 5th places in the high jump with R. Morris and W. Anran.

Other finalists were M. Bates (6th: Triple Jump); D. Barford (5th: 100 yds.); J. Domaingue (5th: 120 yds Hurdles, 4th: Long Jump); B. Hartley (3rd: Javelin); and P. Peace (4th and 6th: Discus and Hammer, 5th: Shot).

In the Women's events, Joan Gaskell (2nd and 3rd: 100 yds and 220 yds.) and Leslie Sayles (1st and 4th: 440 yds. and 80 m. Hurdles) secured several valuable points.

Final Result:

1st—Imperial College.

2nd—University College.

3rd—Guy's Hospital:

D. TONG

GOLF SOCIETY

An Open Golf Meeting is being held this year *on August 8th at Knoll Park G.C., Kent.*

Any past member of Guy's Golf Club, who would like to play should write to the Secretary, G.H.G.S., for details, stating handicap.

TENNIS

v. Shooters Hill. Lost 0—9.

J. Boyd and C. Newman .. Lost 3, Won 0.
R. Knight and W. Swidvongs Lost 3, Won 0.
J. Davies and J. Siegle .. Lost 3, Won 0.

v. Kings College Hospital

Rain stopped the match at tea, with Guy's in a commanding position, 4—0.

v. University College, London. Lost 4—5

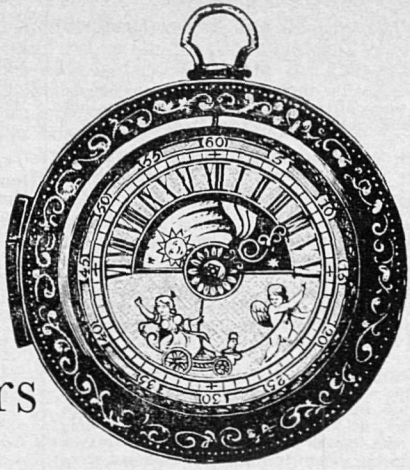
J. Boyd and C. Newman .. Won 2, Lost 1.
J. Siegle and J. Davies .. Won 1, Lost 2.
W. Davies and A. Child .. Won 1, Lost 2.

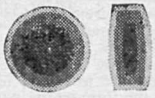
v. St. Thomas's Hospital. Won 8—0

J. Boyd and C. Newman .. Won 2, Lost 0.
R. Knight and H. Sharp .. Won 3, Lost 0.
J. Davies and W. Davies .. Won 3, Lost 0.

Owing to space restriction, reports and results not appearing in this issue will appear in the next Gazette.

acts in minutes– lasts for hours



'Pro-Actidil', *in reality*  *three* special tablets in one, gives sustained relief to the allergic patient. It contains triprolidine hydrochloride, the most potent of the antihistamines, specially formulated to give continuous action for up to 24 hours in most patients.

If given in the evening, four to five hours before retiring, 'Pro-Actidil' ensures a good night's sleep for the patient, free from sneezing, irritation and restlessness. Any side-effects, such as drowsiness, should therefore occur at bedtime.

'Pro-Actidil' is recommended for adults and children over ten years.

'PRO-ACTIDIL' brand

PROLONGED ACTION triprolidine tablets

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HOSPITAL INFORMATION

HOUSE APPOINTMENTS

June 1st, 1964

Assistant House Surgeons

To:
Mr. Lawrie — Mrs. J. Husband
Appointed for 6 months, the first 3 as A.H.S.

Mr. Glover — Mr. P. K. D. Bush
Appointed for 6 months, the first 3 as A.H.S.

Mr. Brain — Mr. B. R. G. Neville
Appointed for 6 months, the first 3 as A.H.S.

Mr. Beard — Mr. R. John Parker
Appointed for 6 months, the first 3 as A.H.S.

Assistant House Physicians

To:
Dr. Mann, Dr. Scott and Dr. Bishop — Mr. M. B. Williams.
3 *months*

Dr. Hardwick, Dr. Trounce and Dr. Deuchar — Mr. P. Banks
Appointed for 6 months, the first 3 as A.H.P.

Dr. Baker, Dr. Houston and Dr. Grimble — Mr. R. L. Strickland
Appointed for 6 months, the first 3 as A.H.P.

Dr. Kauntze and Dr. Joiner — Mr. A. Dowlatdad
Appointed for 6 months, the first 3 as A.H.P.

Professor Butterfield and Dr. MacLean — Mr. R. J. Hart
Appointed for 6 months, the first 3 as A.H.P.

Casualty Officers

Mr. J. N. Davies
Mr. A. E. Davis
Mr. M. N. Maisey
Mr. N. Ramsbottom
Mr. W. G. Reeves
Mr. I. Vadasz
} 3 *months*

House Surgeons

To:
Mr. Eckhoff — Mr. D. K. C. Cooper
6 *months*

Professor Atkins — Mr. A. D. Milner
3 *months*

Mr. Wass — Mr. C. B. T. Adams
6 *months*

Mr. Blackburn — Mr. R. I. Kennedy
3 *months*

House Physicians

To:
Dr. Mann, Dr. Scott and Dr. Bishop — Mr. M. O. Rake
6 *months*

Dr. Hardwick, Dr. Trounce and Dr. Deuchar — Mr. F. Navab
6 *months*

Dr. Baker, Dr. Houston and Dr. Grimble — Mr. A. S. Russell
3 *months*

Dr. Kauntze and Dr. Joiner — Mr. C. N. Garstang
3 *months*

Professor Butterfield and Dr. MacLean — Mr. M. C. Pearson
6 *months*

Resident Obstetricians

1.1.64—30. 6.64 — Mr. G. R. Peachey
1.3.64—31. 8.64 — Mr. T. Middlemiss
1.5.64—31.10.64 — Mr. D. Denis-Smith
1.7.64—31.12.64 — Mr. D. G. Bancroft

Throat and Ear House Surgeons

Mrs. P. N. Hall-Matthews
3 *months*

Mr. J. P. Sedgwick
6 *months*

Orthopaedic House Surgeons

Mr. R. Kumar
Mr. J. M. Latham
6 *months*

Dermatological House Physician

1.5.64—31.10.64 — Vacant

Neurological House Physician

Mr J. E. C. Hern
3 *months*

Genito-Urinary House Surgeon

Mr. F D. H. Birkett
6 *months*

House Surgeons to the Thoracic Unit

Mr W. D. A. Foster
Mr K. M. Pagliero (S.H.O.)
6 *months*

Children's House Physicians

Mr. C. Chantler
3 *months*

Miss C. M. Britton
6 *months*

House Physicians in Clinical Pathology

Mr. J. D. Gatenby Davies
3 *months*

Mr. J. H. McDonald
6 *months*

House Physician to Dr. Bishop and Professor Butterfield and Dr. Wayte and Mr. McArthur.

Mr. M. D. Middleton
3 *months*

House Physicians in the Department of Psychological Medicine

1.4.64—30.9.64 To:
Dr. Stafford Clark — Mr. P. Kornan
1.4.64—30.9.64 To:
Dr. Fleminger — Mr. P. A. Murray

R.M.O.s in Nuffield House

1.1.64—30. 6.64 — Mr. W. J. Appleyard
1.3.64—31. 8.64 — Mr. M. D. O'Brien
1.7.64—31.12.64 — Miss R. A. Smith

Resident Anaesthetists

1.3.64—31. 8.64 — Mr. J. C. Simpson (S.H.O.)
1.3.64—31. 8.64 — Mr. I. M. Boyd
1.6.64—30.11.64 — Mr. J. B. Kelly (S.H.O.)
1.6.64—30.11.64 — Miss R. R. Norton

BECKENHAM HOSPITAL

House Physician: Miss J. D. Pike
House Surgeon: Mr. D. L. Carle

JOYCE GREEN HOSPITAL

House Physician in General Medicine with Dermatology:
Mr. J. E. A. Oni-Orisan

LEWISHAM HOSPITAL

House Surgeon to Mr. Jemson:
Miss I. C. Askay
House Physician to Dr. Roberts:
Mr. V. E. Egwuatu

NEW CROSS HOSPITAL

House Physician: Mr. G. Ebrahimzadeh

ORPINGTON HOSPITAL

House Surgeon with E.N.T.: Mr. N. S. Young
House Physician: Mr. D. G. Nanckievill

PEMBURY HOSPITAL

House Surgeons:
Mr. I. R. M. Anderson
Mr. J. D. Goddard

QUEEN MARY'S HOSPITAL, SIDCUP

House Surgeon: Mr. P. E. Heywood

ST. JOHN'S HOSPITAL, LEWISHAM

House Surgeon: Mr. K. F. Standage

HOSPITAL INFORMATION

GUY'S HOSPITAL, S.E.1.

SURGICAL TAKE-IN. NEW ARRANGEMENT

It has been decided that the surgical firms' take-in period will revert to seven days, commencing at 10.00 a.m. on Tuesday, 2nd June, 1964. The take-in period for medical firms will remain unchanged.

The duty rota for June will be as follows:

June 2— 9—Mr. Eckhoff and Mr. Glover.
,, 9—16—Prof. Atkins and Mr. Lawrie.
,, 16—23—Mr. Wass and Mr. Brain.
,, 23—30—Mr. Blackburn and Mr. Beard.

J. B. BLAIKLEY,
Superintendent.

PASS LIST

ROYAL COLLEGE OF PHYSICIANS OF LONDON

At a comitia of the college on April 30th, the following were elected to the Fellowship:

G. P. Baker
A. Bloom
C. J. Earl
W. H. H. Merivale
C. Keith Simpson
J. R. Trounce

UNIVERSITY OF CAMBRIDGE
M.D., May, 1964

W. F. W. Southwood

NURSING NEWS

Entered
Sister J. Dungay to Theatres.

Left
Staff Nurse J. Gibb from Theatres.

PERSONAL

Nurse qualifying June seeks position Receptionist/Secretary to Consultant, July onwards. Some previous secretarial training. Box No. 355.

For Sale. Examination Couch, in excellent condition. Also X-ray viewing box, size 13in. by 16in. Box No. 356.

CHANGE OF ADDRESS

D. J. Gallivan, Esq., L.D.S.R.C.S., Eng., 94, Caerleon Road, Newport, Mon.

Dr. and Mrs. A. N. Greenwood, D.D.S., L.D.S., 1506, Cedar Avenue, Trial, B.C. Canada.

Dr. and Mrs. W. D. Hayley, 52, Burges Road, Thorpe Bay, Southend-on-Sea, Essex.

Dr. D. C. Gill, Tea Tree Gulley, South Australia.

BIRTHS

ADAMS.—On March 12th, at Cheltenham Maternity Hospital, to Dawn (née Cazens) and Jamie Adams, a daughter, Lucy Clare, sister for Stephen and Matthew.

BLAKE.—On 4th May, 1964, at Cuckfield Hospital, Sussex, to Katherine (née Cuthbert) M.B., B.Chir., M.R.C.P.Ed., and Henry V. Blake, M.B., B.S., of 60, Houndean Rise, Lewes, Sussex, a daughter (Anabel).

DREDGE.—On April 17th, 1964, to Alison (née McNair, S.R.N.) and Michael Dredge, B.D.S., of 42, Outram Road, Southsea, a son, Andrew Duncan, brother for James and Peter.

FORRESTER.—On March 17th, 1964, in Nairobi, to Ann, wife of Dr. A. T. T. Forrester, a son, William Torwood.

HAIN.—To announce the arrival of: Stephen James Frederick Hain, (7lb. 6oz.) at 7.20 a.m. on the 23rd April, 1964, at Camborne-Redruth Hospital, Redruth, Cornwall, to Rosemary (née Wright) and William Hain, a brother for Richard.

MANSIE.—On 28th April, 1964, at Queen Charlottes Hospital, Hammersmith, to Sue (née Talent) and Duncan Mansie, a son.

NELSON.—On 1st May, 1964, to Jean and Ian Nelson, of Friar's Oak House, Hassocks, Sussex, a daughter (Joanna Kate).

NOTLEY.—On May 8th, 1964, at Harsford County Hospital, to Margaret (née Calvert) and Richard Notley, a daughter, Elizabeth Ann.

PATON.—On January 1st, at The Mary Stanley Nursing Home, Bridgwater, to Dawn (née Wood, S.R.N) and Frank Paton, a daughter, Catherine Louise, a sister for Anna and Julian.

SNOOK.—On 18th May, at Avondale Hospital, Evesham, to Jean and Michael Snook, L.D.S., a daughter, Victoria Mary, a sister for Jonathan and Catherine.

WATTS.—On May 10th, at Colchester Maternity Hospital, to Crystal, (née Thomas) and Michael, a daughter, Georgina Melissa, a sister for Joanna Henrietta.

GUY'S HOSPITAL GAZETTE

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Editors *T. C. Davis*
B. H. Hicks

Sports Correspondent *N. J. Knott*

Guy's Hospital, London

PASSIM

Caste No Shadow

Medicine reflects society when it is not leading it, and it is interesting to note the reflection of social attitudes in the physician being documented in a modern setting. For a historical basis, one need only regard the past philosophies of Medicine, the spiritualism of the Mediaeval period, the mechanistic notions of the Renaissance, to see social thinking permeating medical practice.

For the modern view, a paper in the American Journal of Psychiatry on psychiatry in the Deep South of the United States provokes us to thought. The writer, Robert W. Daly, finds that many of the social characteristics of the area are to be found again in the consulting room. "Poverty" reflects in the paucity of psychiatric centres, and "Tradition" puts the psychiatrist firmly in the category of head-shrinker, with little part to play in the social development or industrial medicine of the community. The "Economy", in the sense of the dynamics of (slow) social progress and (rapid) industrialisation, finds its mark and victim in the neurotic individual. But most interesting, and partly a result of all these, is the effect that ingrained traditions of colour and caste exert on patient, physician and their relationship. Daly suggests the existence of a caste system in which are recognised three classes of white, below which stands the Negro class, irrespective of other class symbols such as income, education or profession. The psychiatrists in the Deep South fall almost entirely into the white upper class, and their assistants and nurses into the white middle class; their patients are drawn largely from the same classes. The shortage of clinics and a public attitude precludes proper consideration of the "Negro class" or the white lower class, and if a consultation is obtained then treatment may hardly be therapeutic. To quote Daly:—

> Due to the caste barrier, an upper class white psychiatrist has difficulty sustaining the equalitarian relationship necessary for prolonged psychotherapy with a Negro of any class. Even if such a relationship were sustained, the opportunities for the Negro patient to radically alter his behaviour would be very limited—save for migration. Perhaps it is wiser not to find pathology for which no treatment is possible.

It seems to us that the pathology lies deeper than the individual, and the treatment is not so obscure. Even at this distance.

The rebuilt wing of Guy's House emerges from behind its hoardings, glistening in its new whiter-than-whiteness, to lure us with dreams of indoor palaces. Hopes are pinned at the moment on an opening date some time in September (of this year, we assume). The college gets a new lease of life (?) as a students' hostel, which brings it considerably nearer the demolition squads and rest in peace. And the new Stephen Ward is located in one of the blacker buildings of Guy's. No comment, of course.

Keats Calling

Dr. Aileen Ward first worked as a graduate student at Harvard and has subsequently taught at both the Radcliffe and at Columbia University. For some years the object of her research has been the poetry of Keats and last year she appeared on British television after receiving the Duff Cooper Memorial prize for her recent book. She is particularly interested in this hospital's effect on the poetry of John Keats. He first started to write seriously while in St. Thomas's Street and it has been said that "while at Guy's his poetry graduated from the good to the great". Dr. Ward is a young American and she will be giving a lecture on this not too familiar subject on June 26th.

We were very pleased to learn that Dr. W. Gordon Sears has been elected President of the Hunterian Society for the session 1964-65.

The recent death of Mr. McNair is a sorry blow for Guy's. Essentially a humble man, his influence on British obstetrics has been enormous. We extend our deepest sympathy to his widow. An appreciation will appear in the next issue of the *Gazette*.

GUY'S DIARY

JUNE

EXHIBITION.			*Goitre.*
16th	T.	1.00	Dr. BISHOP. Clinical Lecture. *Cushing's Syndrome.*
18th	Th.	1.00	Mr. LAWRIE. Clinical Lecture. *Typhoid Fever.*
19th	F.	1.00	DAME HONOR B. FELL. D.B.E. F.R.S. Clinical Lecture. *The Direct Action of Environmental Factors on the Skin.*
22nd	M.	1.00	Dr. N. E. LEVAN. M.D., Professor of Medicine, University of S. California. Clinical Lecture.
23rd	T.	1.00	Dr. VAUGHAN. Clinical Lecture. *Crime in Short Pants.*
25th	Th.	1.00	Mr. GLOVER. Clinical Lecture.
25th	Th.	1.00	Mr. L. WILLMORE. Dental Clinical Lecture. Dental Theatre. *Disorders of Voice and Speech.*
26th	F.	1.00	Miss AILEEN WARD. Clinical Lecture. *John Keats: The Poet as 'Physician to all Men.'*
29th	M.	1.00	Dr. VALE. Clinical Lecture. *Shock and the Anaesthetist.*
30th	T.	1.00	Mr. BLACKBURN. Clinical Lecture.
JULY			
2nd	M.	1.00	Dr. HARDWICK. Clinical Lecture.
3rd	T.	1.00	Dr. TROUNCE. Clinical Lecture. *Drug-induced Nephropathies.*

Professor John McMichael, M.D., F.R.C.P., F.R.S., will deliver the Carbutt Memorial Lecture at 5.0 p.m. on Tuesday, 23rd June, in the Physiology Theatre. The title of the lecture is "The Management of the Heart in Failure".

OBITER DICTA

Professor Atkins (*to a student at Out-Patients*):

"Please raise your right foot and crush that beetle."

Mr. Stamm:

"Evolution is alright when you've got where you're going, but I find it rather painful on the way."

Recent Trends in the Manipulation of Two Materials frequently used in Restorative Dentistry

Restorative dental materials have for many years been manipulated by using hand techniques recommended by the manufacturers and by the teachers in this field of dental science. In many instances, individual operators tend to disregard advice on the handling of such substances. Although the producers of some brands of dental materials allow for a considerable degree of latitude in this process, this degree of safeguard varies and any discrepancies which minimise the chance of standardising manipulation will inevitably reduce the quality of the restorations that are inserted.

During the last two decades, research has been conducted in this subject with a view to determining the efficacy of substituting mechanical devices for some of these tasks. In particular, investigations have centred round the use of mechanical proportioners and mixing devices for amalgam, and the use of similar mixing apparatus for silicate cements.

It has been possible to make test specimens in order to compare the results using the latest ways of preparing amalgam and silicate, with the procedures of manual handling that have been common in the past. The experience gained in carrying out these experiments should prove useful in the examination of new materials and the production of modifications in existing types of like substances together with investigation into their behaviour.

Amalgam Alloys

Tests have been made concentrating particularly on those brands with a fine particle size that tend to allow a reduction in mercury content and harden rapidly. These have been used to compare the hand and mechanical methods of dental alloy manipulation and condensation.

Silicate Cements

Silicate cements have also been tested, particularly those with fine powder particles, and also a glass-fibre reinforced material which tends to produce specimens which harden rapidly and produce a high compressive strength. These have been used to compare the hand and mechanical methods of mixing silicate cement.

Methods of Testing Amalgam

1. (a) Mechanical amalgamation was carried out in a Wig-l-bug Amalgamator, using a mixture time varying between 3 and 55 seconds.

(b) Mechanical condensation was effected by using a Dentatus Vibrator.

(c) Compression test specimens were made in split stainless steel moulds and crushed in a Hounsfield Tensometer testing machine after 7 days.

(d) Dimensional change test specimens were placed on a Mikrokator immediately after packing and their dimensional change was measured over a period of 3 days.

Three specimens were prepared for each test and an average taken of the readings recorded.

Methods of Testing Silicate

2. (a) Mechanical mixing was carried out in a Wig-l-bug machine using a 15-second mixing time.

(b) Compression test specimens were packed within 1 minute into split mould made of Tufnol and crushed in the Hounsfield Tensometer after 24 hours.

Five specimens were prepared for each test and an average taken of the readings obtained.

Results and Conclusions

Amalgam

1. *Alloy amalgamation method.*

Mechanical amalgamation consistently raises the compressive strength of the specimen by 25 per cent but tends to reduce the expansion figures by 30 per cent. This can be compensated by reducing the mixing time by half. Further lowering of the amalgamation time causes marked expansion and an undesirable drop in the compressive strength.

2. *Mechanical amalgamation time.*

Increasing or decreasing the mixing time above the optimum figure of 7.5 secs. (for two portions or 2 tablets of alloy) lowers the compressive strength by 25 per cent and increasing the time can reduce the amount of expansion by 35 per cent, whilst decreasing the time can increase expansion by 60 per cent.

3. *Condensation method.*

Mechanical condensation produces lower compressive strength figures irrespective of any variations in mercury/alloy proportions but varying with the amalgamation time, between 1 per cent and 50 per cent. In addition this technique tends to cause specimens to contract where normal proportions are used. If the initial mercury content is lowered markedly, mechanical condensation causes a reduction in the expansion figures for the specimens.

4. *Condensation time.*

If the condensation time is reduced below two minutes for each specimen of two portions, the compressive strength figure is reduced by 37.5 per cent although there is no apparent dimensional change. This is accentuated when a mechanical condensing device is used as the packing procedure may take longer to complete.

Silicate

Mixing method in relation to compressive strength.

Considerable difference in the quantity of powder which could be incorporated into a standard quantity of liquid was noticed. This varied with the brand used. Some materials mixed more easily and produced higher compressive strength figures. Where the brand and the powder/liquid ratio were identical, the only variable being the mixing technique, hand mixing provided specimens between 10 per cent to 20 per cent higher in compressive strength compared with those mixed mechanically. The highest figures being recorded at a ratio considerably below the maximum attainable. Although it is possible to mix small quantities of silicate cement in a mechanical amalgamator, the results are very varied, particularly as they are beyond the control of the operator once the apparatus is operational. A similar quantity of powder and liquid can be mixed on a glass or agate slab, using a tantulum or chrome cobalt spatula and can thus be varied at will during the process of incorporation.

D. LONDON.

The Decalcifying Effect of Some Foods and Drinks

It has been noticed that a sudden increase in the number of cavities in patients may be related to a change from one eating routine to another, particularly a change where "extras" in the form of sweets or drinks are taken between meals. This has been seen in children up to ten years old, the student age-group including nurses, physiotherapists and radiographers, and those people who give up smoking.

Several of these "extra" foods and drinks were chosen to relate to the various age-groups concerned, and their direct effect as decalcifying agents tested on teeth. The substances were:—

(1) Ice-lolly.
(2) Lemonade.
(3) A lemon juice-like drink.
(4) A glucose fruit drink.
(5) A "cola" type drink.
(6) Another "cola" type drink.
(7) An orange squash.
(8) A sharp-tasting sweet said to refresh.
(9) An (edible) seaside rock.
(10) A lollypop.
(11) A clear type of mint sweet.
(12) A white peppermint sweet.
(13) A fruit tasting sweet.
(14) A bitter beer.

The decalcifying action of these substances depends on their acid content so they were made up in aqueous solutions. The ice-lolly was allowed to melt and the resulting liquid used, the drinks that required dilution were prepared according to the maker's instructions where these existed, the sweets were dissolved in water to give a 10 per cent solution, this figure being chosen as it was convenient to make up. Two samples of each of the sweets solutions were used, saliva being added to one.

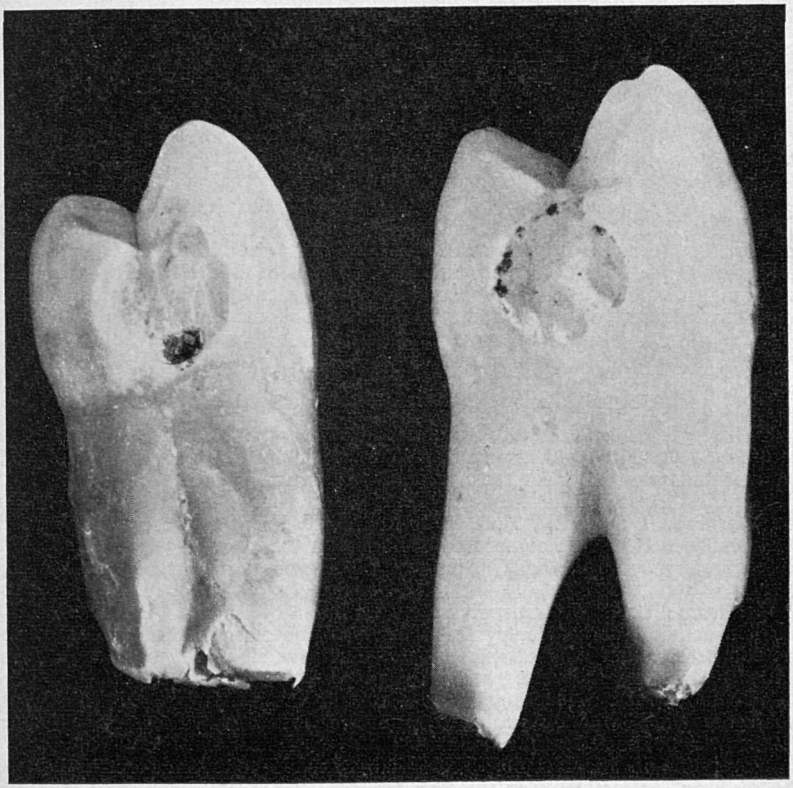
The teeth were sterile, young, upper premolars with no evidence of decalcification on either the mesial or distal surfaces, and were prepared so that a small window of enamel was left exposed on the mesial or the distal surface and the rest of the tooth covered with wax. Pairs of these prepared teeth were then incubated in the solutions and left for three and six weeks, after which time the wax was removed, and the "window" area compared with the rest of the enamel.

The pH value of each of the solutions was measured several times during the incubation period, using indicator solutions and taken to the next higher whole number. These were found to be all under two except—

the white peppermint sweet ... ... pH 7
the bitter beer ... ... pH 5

Decalcification was seen in all the teeth to a varying degree, except for those in the solutions of a white peppermint sweet and the bitter beer. Actual cavities were seen in the teeth that had been incubated in solutions of:—

the ice-lolly,
the lemon juice-like drink,
the glucose fruit drink,
the two "cola" type drinks.
the fruit tasting sweet with saliva.



Teeth which have been immersed for six weeks in an ice-lolly liquid (left) and a lemon juice drink (right)

The results of this in-vitro experiment showed that some of the solutions possessed a stronger decalcifying effect than others on the enamel despite the pH values of most of them being less than two. The sweets in solution did not seem to have the same decalcifying power as the drinks, and the white peppermint sweet in solution with saliva was little different from seaside rock, a lollypop or the clear mint sweet. The white peppermint sweets have been regarded by many practitioners as a very common cause of cavities and this apparent disparity between the in-vitro result and that found in clinical practice is probably due to the method of eating, and the frequency of eating, rather than the sweet itself, as there is no reason to suppose that sucrose flavoured with peppermint should be broken down by the mouth bacteria any differently than sucrose alone, or with any other flavouring material.

The time taken to produce cavities such as are seen in the illustration corresponds to repeated eating or drinking over a long period, but the fact that such cavities can be produced from solutions of everyday foods and drinks, suggests that similar cavities could also be produced in the mouth by these "extras" if the frequency of taking them, or the length of time they were kept in the mouth, which is the same thing as regards their decalcifying power, were sufficient.

P. AYLING.

NOTICES

Guy's Hospital Dental School—Alumni Luncheon

The Alumni Luncheon, on the occasion of the Annual Conference of the British Dental Association, will be held at the Connaught Rooms, Great Queen Street, Kingsway, London, W.C.2, on WEDNESDAY, 1st JULY, 1964, at 1.0 p.m. The cost of the luncheon will be 24s. excluding wines but including gratuities, and those persons intending to be present are asked to apply for tickets to Mr. Goodliffe, Medical School, Guy's Hospital, S.E.1, together with a cheque for the appropriate amount, made payable to Guy's Hospital Medical School, not later than FRIDAY, 26th JUNE, 1964.

Photographic Society Exhibition and Competition

This will be held in the Gordon Museum from Monday, June 22nd to Saturday, June 27th, with many thanks to Professor Keith Simpson, F.R.C.P., for his kind permission for the use of the Museum.

Entries for the Exhibition and Competition should be left, not later than the morning of Saturday, June 20th, in the basement room off the Gordon Museum (which will be signposted), and should be marked with the entrant's name, preferably on the back in the case of Competition Entries. It will otherwise be carefully covered up until after judging. Entries may be Colour or Monochrome, prints or transparencies. Competition entries should be clearly labelled as such, and an entry fee of 1s. per photograph will be charged for the competition but only at a later date. There will be prizes of vouchers for colour and black and white entries.

There will be a meeting in the Museum early in the Exhibition week, when the slides will be projected, and the Exhibition discussed. Further details will be posted around Guy's.

Everyone in the Hospital is cordially invited to submit entries, attend the meeting, or just look at the Exhibition.

J. S. GREGSON,
Hon. Sec., Photo Soc.

MEDICAL EDUCATION IN HUNGARY

A. Kaldor, M.D. Budapest

"He could have got a first, but he went to too many lectures". "We are not in sympathy with the view that the lecture is an archaic survival from the days before printing was invented" (*The Guardian*, February 14th, 1964). The case for and against lectures is also the main problem of medical education in Hungary. I intend to outline our system and the difficulties of medical education, and to add comments comparing the differences observed during my short visit to England.

Due to geographical position and historical facts, medical universities in Hungary follow German traditions. Teaching is based mostly on formal lectures delivered by the head of the department. The urgent need for the improvement of practical clinical education and the ever-increasing amount of new scientific material has made it necessary to introduce some reform of medical education recently.

The main problem is the regulation of admission to the universities but considering the actual needs of the country, Hungary is not badly supplied with medical men. More than 17,000 qualified doctors attend the 11,000,000 population in the country and there are 71,000 hospital beds. Unfortunately, about 43 per cent of the doctors are working in Budapest, producing some shortage of General Practitioners in the country. Some increase in admissions to the four medical universities of the country will solve partly the problems in a few years' time.

The educational system in Hungary as a whole must be outlined for a better understanding of the problems of admittance to the universities.

There is no selection at the age of eleven and all boys and girls leave the same kind of school at the age of fourteen. Later education is voluntary and follows in the gymnasium for four years. The results of the final examinations, equivalent perhaps to G.C.E., the French Baccaleureate or the German Abitur have considerable weight in the selection of university candidates. There is nevertheless a previous examination (biology, physics, etc.) and a personal interview. Preparatory courses are organised each year by the universities and the City Councils. The waiting lists are considerably smaller in Hungary. In the most popular medical university of Budapest, one-fourth of the applicants are admitted. Those who fail each year and do not give up their project, may work as nurses or technicians for a year or so, and this fact is favourably considered on a repeated application. It is also taken into consideration that more than one-third of the students do not finish their curriculum (failing examinations, marriage, childbirth, etc.).

The medical university of Budapest has three faculties: Medicine, Dentistry and Pharmaceutics, which involves 3,645 students altogether (1961-2). The relatively high number of females (1,802) particularly among the Pharmacists (67.1 per cent) must be surprising and I had better refrain from any comments. In Great Britain apparently, males are considered the more apt for the medical profession. Due to the shortage of lecturers in East Germany, a group of students (121) also study in the university, and during the first years they attend lectures in German. There are 56 students from other countries, and the majority come from Africa, and most of them return to their native country after qualification. Some foreign doctors prepare their thesis in different institutes of the country.

The medical course is not a great financial burden for the family of the student. Based on the income of the parents, and the results of the examinations, 30 per cent of the students are granted substantial scholarships, and to another 30 per cent social support is given. Fifty per cent of the students have free lunches in the canteen. The college system, unfortunately, is not so developed as in Great Britain. The three smaller universities in the smaller towns in different parts of the country, are perhaps more similar to university towns in England, and I think that an English medical student may find familiar sights, impressions and atmosphere in the small town of Pecs, which is in a beautiful valley beside the Mecsek mountain, providing wonderful facilities for sport and leisure.

In the British sense, there are no teaching hospitals; the clinical departments belong administratively and economically to the University.

The first two years are given to pre-clinical studies (Physics, Chemistry, Anatomy, Histology, Embryology, Biochemistry and Physiology) and before entering the clinical course, examinations must be taken and passed in these subjects. From the third year, besides pathology, pathophysiology, microbiology, and pharmacology, teaching of surgical and medical diagnostics also begins. For internal medicine, the students, some years ago, went every year to a different department, but this novel scheme did not prove successful. Sometimes I had the feelings of a worker standing by a conveyor belt knowing nothing of what had happened before my turn. Now, the students are attached to the same teacher in the clinical years in each department, and this provides a better contact and more educational possibilities. Those students who show up obvious capacities or take part successfully in some experimental work may return after qualification into the same department. The professors are rather keen to pick their new staff from among them.

During the clinical years the students attend formal lectures, mostly during the mornings, seminars and ward rounds being in the afternoon. Students are not admitted for examination if they were absent on several lectures or during their practical training. Most of the lecturers refrain from calling rolls, although in some "unpopular" subjects it is not easy to avoid them. The attendance is naturally determined by the personality and qualities of the teacher; however,

few of the students can overcome the challenge of the early sunshine in spring. Besides the Professors, several lectures are held by the senior staff mostly in fields they are particularly familiar with and have done research into. This is not always a good thing. A lecturer frequently emphasises the importance of his field of study and instead of outlining connections, he becomes lost in detail. There is, naturally, no easy method of estimating the qualities of a teacher. The bulk of publications have, unfortunately, their effect in this regard as well, and the popular teachers are not always the best.

Several teachers follow methodically the chapters of the text books and very few of them have the capacity to consider a seemingly small problem as a peak of a hill and lead the eye of the student to recognise and evaluate the far landscape. This is the mode of teaching, emphasising more the way of medical thinking and general problems of medical activity that I had the opportunity to observe in the Medical Department at Guy's. Seminars and practical teaching in Hungary are the task of the staff in the departments. Although the use of the qualities of professorial capacities for the teaching of 5-10 students appeared to me like luxury, the imprint of these sessions on the further development of a student can hardly be denied.

Following the three clinical years, the student must go for two to three months into different types of departments and here the big hospitals of Budapest are included, and the consultants become responsible for the training of the students. At the end of each period the examinations of the subject must be taken, followed by a state examination in the end.

According to the new reforms, after qualification, students with "Summa cum laude" may choose both speciality and place (i.e., Institute of Biochemistry, Budapest), those "cum laude" either speciality or place. To the rest, three concrete jobs are offered, from which one must be chosen. This method seems to be sound and corresponds to the requirements as well. In some few cases personal circumstances must be also considered.

For specialisation new examinations are taken after spending 3-4 years in respective departments. The higher academic qualifications require, beside examinations, the public discussion of theses containing published and unpublished research in a definite specified field.

Post-graduate training is secured by the newly-established post-graduate medical school of Budapest providing temporary courses with accommodation and special lectures in different fields. Consultants in small country hospitals and also the younger staff are regularly sent to the universities for further training.

This short review obviously cannot deal with many important questions, such as the education of G.Ps. or research facilities, which are also in the foreground in Hungary.

Much was written on the problem of the brain drain recently in this country. It should be emphasised nevertheless, that Great Britain generously offers her brains for foreign scientists within the country. It is a distinction and an honour for a Hungarian doctor to drain them.

A GUY'S REUNION — Sydney, 1964

" Well, there's some mighty odd looking guys down that wharf", said the Ticket Collector. And so we wandered down, amidst Guy's scarves, banners and ties to the Reunion being held in Sydney. Actually this was going to be different—a Ferry Cruise around " the 'Arbour " with ample provisions supplied (taken on board of course, should we all get lost at sea!). Professor Bishop and his charming wife were to be the guests of honour, and the rest of the party, every Tom, Dick or Harriet who had the remotest connection with our Alma Mater, ye olde Hofpitale.

The group numbered some 50 souls, and in a small craft this necessitated a tight squeeze, a circumstance which some felt most necessary when their balance mechanism became somewhat anaesthetised.

Speeches were, by popular vote, cut to a minimum, although we were sorry not to hear another good story from Professor Bishop. An unusual experience was when the Captain of our craft took us right up against the enormous hole in the bow of the Aircraft Carrier Melbourne, which on manoeuvres had so tragically sunk the destroyer Voyager.

Amongst the distinguished company was Dr. C. R. Hodson, who qualified at Guy's in 1897—surely amongst the oldest of the old Guy's men. Evidently physics was none too well taught in those days and he required extra tuition . . . . . from none other than H. G. Wells (even before his books were published).

The latter half of the evening is now vague to the writer, but he is told that not a few of those participating felt a nostalgic, if not rather painful, memory of the good old days the following morning.

E.O.

REPRINTS

Reprints of the following articles recently published in the *Gazette* are now available:—

Bermondsey and Southwark, IV., *" Life and Health "*, by Roger Blaney.

A Scientific Background to Clinical Medicine:—

1. *Fundamental Genetics* by B. J. Rickard.
2. *The Biochemistry of Genes* by W. L. G. Gent.
3. *Human Chromosomes and their Abnormalities*, by Janet Northfield.
4. *Inborn Errors of Metabolism* by P. F. Benson.
5. *Congenital Abnormalities* by R. G. Spector.
6. *Sex Determination and Development*, by J. L. Hamerton.
7. *Statistics in Clinical Medicine*, by C. P. Wendell-Smith.
8. *The Mitochondrion*, by A. N. Davison.
9. *Aspects of Normal and Abnormal Antibody Production*, by G. Payling Wright.
10. *Immune Diseases and Autoimmunity*, by M. H. Lessof.
11. *Transplantation Immunity*, by Shireen Saleh.
12. *Current Virology*, by R. H. Gorrill.
13. *The Genetics and Biochemistry of Drug Resistance in Bacteria*, by R. Knox.
14. *Isoenzymes*, by A. N. Davison.
15. *The Pathogenesis of Cancer*, by J. O. Laws.
16. *Biochemistry and Schizophrenia*, by N. A. Gregson.
17. *The Chemistry of Connective Tissue*, by Margaret Whichelow.
18. *The pH of the Blood*, by W. L. G. Gent and J. R. Trounce.

These and subsequent reprints in this series, may be obtained, price 1s. each, from the Manager, Gazette Office.

CRITICISM

by R. A. SELLS

An Entertainment

for Shakespeare Quatercentenary Year

Guy's Hospital Theatre and Music Clubs

Much has been said and sung this year to honour the genius, the emancipator of the English language. Your reviewer has not been to Stratford since the Coventry Festival nearby, but a recent visit to a ladies' public school Old Girls' Day, where a Shakespearian review was staged, left him with a sad feeling that the motive behind the gesture was a sense of obligation to the academic institution—lip-service to the Art. The combined efforts of the Theatre and Music Clubs were prompted by the anniversary, and by the geographical proximity of the Elizabethan cultural centre. The motive was more praiseworthy—the production attempted to capture Shakespeare in the context of the contemporary artistic climate. The result was an astounding success. Our evening's entertainment comprised excerpts from seven plays—five tragedies, two comedies—music mostly from the right period and sonnets. The resulting mosaic would have been too harshly contrasting for us to sit through (over three hours) without a commentary, and this we had from Malcolm Burke, whose familiarity with stage, acoustics and audience produced a framework into which the items slipped with beautiful precision and ease. The account was partly factual, partly sociological, and altogether entertaining. The simplicity of stage and direction was practical, and enabled some excerpts to be high-lighted magnificently, particularly the two most powerful pieces—Lear, Act I, and Macbeth, Acts I and II (directed by Stewart Cameron and Stephen Robins respectively). The destitute tragedy of Peter Dunstan's Lear and the vicious, sensuous power of Mary Cunningham (Lady Macbeth and Gonerill) were moving. The support was competent and unobtrusive (Stewart Cameron as Lear's Fool) but it was Chris Davies as Macbeth who provided the climax of the evening in the moonlight (after some indecision on the switch-board) with a supernatural expression of foreboding which made us hold our breath. This was at the end. The play started with a tragedy (mistakenly) and the piece from Richard II was not strong enough to capture our attention. Northumberland was noteworthy.

Christopher Matheson provided an electrifying Richard III in a good sequence admirably supported. His body tensed, the clubbed foot, deformed fingers (he missed the scoliosis!) hanging from him in grotesque outline, he delivered his words as high-pitched showers of bullets, using eyes and lips to potentiate the figure and character of the maniac king. From Olivier originated a grand tradition. The formula worked.

Another formula which worked was Shakespeare's own—Antony's speech after Caesar's death. The writing is, of course, magnificent; Antony was

alternately appealing and hysterical, with not much in between. The crowd was not pushed, it co-operated and due to lack of rehearsal was seen to co-operate: the rebellious upheaval which the author intended thus became a rather meaningless sycophancy. But the formula worked for all that, and we enjoyed it and the genius shone through. Henry IV, Part I (my favourite) worried me. The Eton prefect-member of Pop (Hal—Tony Harrison) persecuted the admirable fag (Francis—Peter Davenport) but the pathos of Falstaff (David Graham) was lost in an abyss of missed cues and awkward pauses. A pity, because the bawdy house atmosphere was excellent (Director—Peter Warren). This one should have moved faster.

Richard Sudworth directed Act II of the Taming of the Shrew; the sparkle of two superlative performances produced a scene of unforgettable delight. Petrucchio (Nicholas Flower) the randy bastard with lovely clothes and a scented forelock, sidled round, bullied, and very nearly infected the bitchy, obstinate shrew (Sue Franklin). This was a high-light (I would love to have seen them in the bedroom), Nicholas Flower also sang two songs from Twelfth Night.

Complementary to all this was the music, a good selection performed by a little group under Peter Peace and Carolyn Mowbray (who trained them with great competence). The idiom of the time was the finest in the entire history of music. The Elizabethan madrigal and the plays both suffered on account of the lack of co-ordination of the two art forms; except *perhaps* for Thomas Morley, we know of no madrigals of the foremost composers written for the plays specifically, and in Morley's case the music was not in madrigal form but was performed as the lute songs which became so famous (Mus. Brit. 1961). The singers were unsophisticated, bold, and displayed much insight in their gentle phrasing and forceful rhythm, while plainly enjoying it immensely. The audience took to the songs—another blow for freedom was struck for the madrigal which I fear has been declining in popularity since the Morley quatercentenary in 1957. A recorder consol (with viol) is an unusual find in an amateur music society, and particularly pleasing when the pieces are executed with such skill as we heard during the interval. The director (Mike Lindop—treble) knows his stuff, and this group must not disappear into oblivion.

There was a beautiful moment when a character straight out of Tom Jones (Shirley Bland—a guest artist from Hampstead) sat, her bust shining in the spotlight, playing her guitar and singing those ageless lavatory and fornicatorial songs, with the grace and lechery of the Elizabethan troubadour. The audience was absolutely scandalised, yet you could have heard a pin drop. She excited us; the same thought was in everybody's mind—Oh for a bawdy house and a dark bedroom upstairs! John Moran also played his guitar, aiming more at the sonorous polyphony of Dowland. A neat contrast.

We also had sonnets from José Haigh and Sarah Endean with introductions from Burke. Though nicely delivered, the change of mood was too great. Perhaps I am less sensitive to poetry read than to drama and music. Perhaps the prelude to each sonnet, though interesting, was too documentary.

And so there it is, an excellent evening's entertainment. The co-operation of two very active societies has turned up trumps and produced a minor masterpiece. Will it happen again? It will. We have been trying for four

years to join forces. We must not let this production drift into the list at the back of the Theatre Club programmes without making plans now for an opera or a masque.

As Stewart Cameron said at the end, the producer, Brendan Hicks was the main force behind this and much gratitude and congratulation must go to him. (He also wrote the narrative.) As regards acting and producing talent we are on the crest of a wave. The next two years will see some excellent productions.

PUPILS' PHYSICAL SOCIETY

The Pupils' Physical Society was again very fortunate in its choice of speaker for the annual lecture, when Mr. Roy Calne spoke on Tissue Transplantation.

His introduction covered a very wide field, ranging from pedicle autografts, to replace noses removed by the judiciary in ancient India, to heterografts, and, in more modern times, grafts between chimæras and Medarvar's work on the development of immune tolerance. For a successful kidney transplantation, and this is, of course, Mr. Calne's particular field, tolerance of the host for the transplant is essential. Between identical twins it is naturally present, but in other cases it must be induced, and for this irradiation and a nitrogen mustard, Immuran, are used. The advantage of genetic similarity is well shown by the survival figures:—

Type of Donor.	3-month survival.	Longest survivor.
Blood relation ..	43%	7 yrs.
Other live donor ..	9%	
Cadaver donor ..	7%	18/12

Before deciding whether a donor is suitable the only immunological features that are at the moment considered are the ABO blood groups, which must be compatible, and no attempts are made to "group" the kidney itself.

We were shown many beautiful slides illustrating stages of graft rejection in the kidney, some from experimental animals, but many were from unsuccessful cases in man.

In view of the limited chance of success and the risks involved, ethical problems must arise, on top of the already severe theoretical and practical ones; for it is the surgeon who must finally decide whether a willing donor should be allowed to give his kidney.

TONY RUSSELL.

Beddard and Laidlaw Prizes

At a meeting of the Pupils' Physical Society on May 5th, nine entries were submitted for the Beddard and Laidlaw prizes, under the adjudication of Mr. P. S. Boulter, Dr. R. K. Knight and Dr. G. A. K. Missen. There were three entries for the Beddard prize and five for the Laidlaw prize; one entry was a combined paper of both a case history and a topic of general medical interest. For the first time in the history of these awards, both prizes were awarded to the same person—Guy Pettitt received the Beddard prize for a very interesting case presentation of primary macroglobulinaemia and the Laidlaw prize for a discussion on the classification of the macroglobulins and their properties. Hugh Tunstall-Pedoe received an "honourable mention" for his entry on Weightlessness and Medicine, which was composed of very logical speculation of the problems of medicine in the space age. Peter Banks was also commended for his presentation of a case of Grawitz tumour. Other papers included such diverse subjects as the action of steroids on lipoprotein membranes, the history of Curling's ulcer, a case of rheumatic fever and a paper on the sanitation and drainage systems of the ancient Minoan civilisation.

CHRISTOPHER PADFIELD.

CORRESPONDENCE

Profile

SIR, In the last issue of the *Gazette* you included, under the heading "Profile", an interview with the dissecting room steward of this department on the occasion of his resignation to take another post. In view of the nature of the statements published by you, I must ask you to make it clear to your readers that no responsible member of this department was consulted, and that no one but your reporter and the steward were concerned in the elaboration of this item. On behalf of the personnel of the Department of Anatomy I must emphasize our wish to be dissociated from many of the remarks reported. In future it would be a wise precaution—and courtesy—to seek advice in such matters, if embarrassment and even ridicule are not to spoil what should be an interesting record of events.

Yours, etc.,

ROGER WARWICK.

Dept. of Anatomy,
Guy's Hospital.

The Editors regret that pressure of time did not enable them to check all their facts, and apologise for any misunderstandings that have resulted from this article. Any discourtesy was certainly not intended.

Shakespeare

SIR, A " Philistine " once wrote to the *Gazette* and reminded its readers that the *Gazette* was, as he said, a " scientific journal", and not the place for quotations from Plato and Horace. However eminent in the medical world " Philistine " may have been, perhaps I may be allowed to suggest that Shakespeare transcends Plato and Horace and even the *Guy's Gazette* or whatever it is that " Philistine " thinks it stands for.

Amidst the welter of words poured out lately about Shakespeare no-one, to my knowledge, has seen fit to quote Matthew Arnold's famous sonnet to Shakespeare which summarises his essential genius as no one else has done. It begins thus, as many readers will remember:—

" Others abide our question. Thou are free,
We ask and ask—Thou smilest and art still,
Out-topping knowledge " . . . . . .

And then the final two stanzas which express concisely and beautifully about Shakespeare all we know, and all we need to know:—

" And thou who didst the stars and sunbeams know,
Self-school'd, self-scann'd, self-honour'd, self secure,
Didst tread on earth unguess'd at—better so!
All pains the immortal spirit must endure,
All weakness which impairs, all griefs which bow,
Find their sole speech in that victorious brow".

Yours, etc.,

G. L. DAVIES.

Hillside,
Midford,
Bath.

REVIEWS

ATLAS OF ANORECTAL SURGERY.

by Richard A. Lockwood, M.D. McGraw-Hill Book Company. First Edition. Pp. 236. *Price* 124*s*.

This unusual and extremely useful work is the result of the enthusiastic response to a postgraduate course in proctology at the University of California Medical Centre. It is designed to illustrate the basic principles of minor anorectal surgery and the investigation of anorectal disease.

By a combination of photographs and very clear pen and ink drawings, Dr. Lockwood has admirably succeeded in producing the guide to the understanding and performance of anorectal procedures for surgeons and house officers which he planned.

The text is limited to purely practical clinical considerations, with the first four chapters devoted to anatomy, clinical examination, general considerations such as pre- and post-operative management and complications, and local anaesthesia.

The illustrations are lavish; for example, there are no less than twenty-eight pictures of the performance of a sigmoidoscopy. The drawings of the various surgical procedures are the clearest and most helpful that have been published on this subject. The wealth of pictures necessarily makes this an expensive acquisition, and it sells in America at sixteen dollars.

Guy's students and postgraduates will be especially interested in that this is the first work to introduce Parks' fistulectomy. The section dealing with this technique was reviewed by Mr. Alan Parks before publication.

The management of haemorrhoids, anal fissure and fistula has never been very satisfactorily dealt with in current surgical textbooks, and the undergraduate will find it a more than useful book to refer to. The house officer will find it invaluable for the management of the common anorectal conditions. This book must therefore find a place in every Medical School library.

The practising surgeon, while he may disagree with some of the techniques described, will undoubtably enjoy this new review of common surgical procedures, and the more affluent surgical registrars will undoubtedly wish to possess a copy.

J. D. MAYNARD.

A TEXT BOOK OF OBSTETRIC NURSING.

by C. W. F. Burnett, M.D., F.R.C.S., F.R.C.O.G. Blackwell. First Edition, 1963. Pp. 257. *Price* 30*s*.

This is an excellent book for the student nurse. The object of the book is "to enable the student nurse to derive maximum benefit from her work in the maternity department, and to make the time spent with mother and newborn baby the most enjoyable part of her training".

It gives a good outline of normal pregnancy, labour and puerperium with a brief resumé of the abnormal.

The nurse's part in the psychological aspect is very much stressed, especially in the ante-natal period and during labour.

The introduction is very helpful to the student nurse who has been used to nursing ill patients, in that it points out the different type of patient and her nursing.

The book contains many very useful diagrams. The diagrams of the development of the Embryo could perhaps be more specifically labelled.

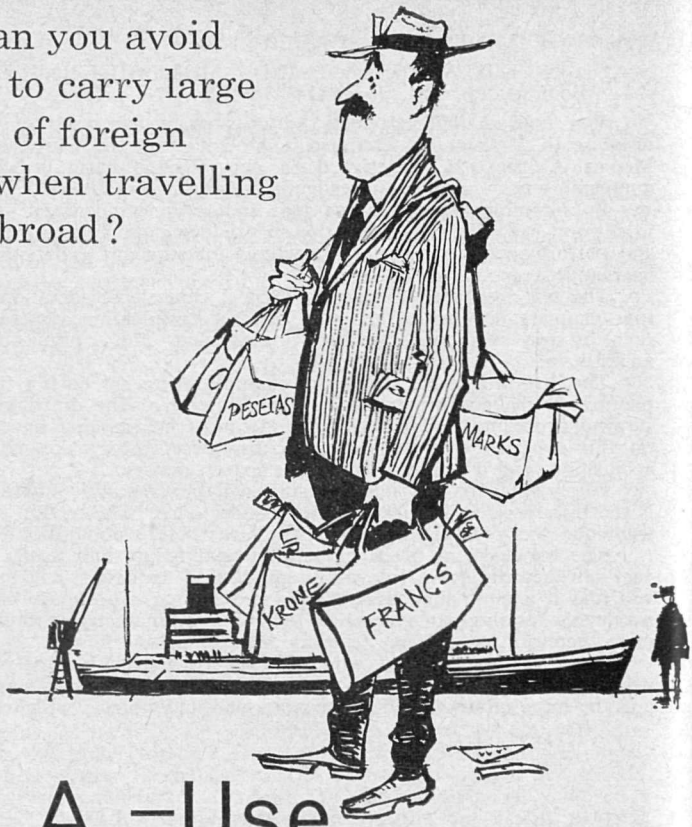
I feel a little alarmed at seeing a photograph of a nurse tube feeding under pressure and feel this method is not suitable for a student nurse to witness.

Perhaps it is a little expensive for the student nurse, but I feel it is well worth the money.

M. WILLIAMS.

Q.

How can you avoid the need to carry large sums of foreign currency when travelling abroad?



A.–Use

Midland Bank

TRAVELLERS CHEQUES!

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SPORT

SPORTS DAY 1964

Sports Day was held on Saturday, 6th June, at H.O.P. under conditions which could hardly be called favourable. The heavy rainfall earlier in the week, plus the inauspicious weather forecast for the week-end, had nearly led to the cancellation of the occasion. However, optimism triumphed, and in spite of the intermittent showers throughout the afternoon, the sports turned out to be an unqualified success. This was thanks to the enthusiastic support of a splendid turnout of spectators who were undaunted by the meteorologists or the conditions.

The competitors bravely defied the elements and keenly contested all the places with an attitude of stoicism typical of true British summer-sportsmen. The ground was heavily waterlogged in places and this led to slower track times than would have been expected. However, a high standard of athletics was maintained throughout.

Two records were broken: R. Morris improved his own high jump record to 6ft. 2ins., and then went on to beat the triple jump record with a leap of 42ft. 7½ins. In the sprints, D. Barford, I. Morgan and A. Winskill had a close tussle, with Barford taking the 100 yards (in 10.3 secs.) and 220 yards; and Morgan the 440 yards in the good time of 52.8 secs. Morgan also won the long jump from J. Domaingue.

In the middle distance events the conditions prevented outstanding times. J. Wheeler ran strongly in the 880 yards to win in 2 mins. 8.9 secs. R. Wilson and A. Lakin were 1st and 2nd respectively in the 1 mile, reversing the positions in the 2 miles held earlier in the week.

In the throwing events, P. Peace, D. Osborne and B. Hartley dominated, and shared the honours evenly. Osborne came close to the record in the javelin with a throw of 160ft. 5½ins., narrowly beating Hartley (155ft. 2ins.) Peace added to his previous years' victories with good performances in the shot and hammer.

After the long reign of D. Waters over the past five years in the Guy's sports, we looked forward to a much closer contest for the Victor Ludorum this year We were not disappointed. Ian Morgan narrowly, though deservedly, won with a total of 29 points, with Andrew Winskill only one point behind.

In the Women's athletic events, Miss J. Gaskell won the 100 yards, and Miss L. Sayles took the long jump. The Women's Dental team won the 4 x 100 yards relay.

In the Club's Relay, the Rugby Club provided both the 1st and 2nd teams home.

In the novelty events, a large number of children and young-at-heart found the going sticky, but in spite of this, everyone gained the maximum enjoyment. The children ran with their usual gusto and there were not too many tears or casualties. The redoubtable Fallopian Four displayed their glottic strength in winning the Beer race.

The Tug-of-war competition this year was most enthusiastically contested, thanks to the organization of P. Peace. Some half-dozen teams competed and provided considerable excitement for the crowd. The Smiths' Bookshop Team beat the Clinical Medicals in the final by 2 pulls to 1.

Undoubtably, one of the big attractions of the afternoon was the outdoor display kindly put on by the Judo and Boxing Clubs. These instructive and sporting demonstrations were often conducted with well-received vigour.

As usual, there were side-shows and novelties, nobly run by members of the Nursing Staff, Hospital Clubs and other hard-working volunteers.

The proceedings of a somewhat damp and windy afternoon were brought to a close by the presentation of the prizes under the welcome shelter of the pavilion.

Mr. Lawrie, who acted as President in Mr. Tomkinson's absence, commended the spectators for their perseverance, and introduced Mrs. Warner, who had kindly consented to give away the prizes. Andrew Winskill, the Athletics captain, in thanking Mrs. Warner and Mr. Lawrie, gave a brief account of the Club's activities for this season. He praised the standard and spirit at present

prevailing in the Club, which promised well for the future. He also thanked Tom Chick and his ground staff for their efforts in preparing the track under such appalling conditions, and for all the individuals, including the Starter and Announcer, who had worked so hard to make the day so successful.

In the evening, a most enjoyable dance and barbecue was held at the pavilion to the music of Bill Basie and his Band, and the sizzle of burning sausages!

D. Tong.

Results

100 yd.—1st, D. Barford, 10.3 sec; 2nd, I. Morgan, 10.4 secs.; 3rd, A. Winskill, 10.5 sces.

220 yd.—1st, D. Barford, 23.5 secs.; 2nd, I. Morgan, 23.5 secs.; 3rd, A. Winskill, 23.8 secs.

440 yd.—1st, I. Morgan, 52.8 secs.; 2nd, A. Winskill, 53.5 secs.; 3rd, D. Barford, 55.5 secs.

880 yd.—1st, J. Wheeler, 2 min. 8.9 secs.; 2nd, N. Robertson, 2 min. 11.4 secs.; 3rd, D. Cooper, 2 min. 11.8 secs.

1 mile.—1st, R. Wilson, 5 min. 3.1 secs.; 2nd, A. Lakin, 5 min. 3.8 secs.; 3rd, A. Leyshon, 5 min. 27.0 secs.

2 miles.—1st, A. Lakin, 10 min. 46.1 secs.; 2nd, R. Wilson, 10 min. 49.8 secs.; 3rd, E. Bowen-Jones, 10 min. 58.9 secs.

120 yd. Hdls.—1st, A. Winskill, 16.0 secs.; 2nd, J. Domaingue, 17.1 secs.; 3rd, I. Morgan 18.4 secs.

High Jump.—1st, R. Morris, 6ft. 2in. (record); 2nd, W. Annan, 5ft. 10in.; 3rd, J. Domaingue, 5ft. 2in.

Long Jump.—1st, I. Morgan, 20ft. 5in.; 2nd, J. Domaingue, 20ft. 3in.; 3rd, R. Morris, 19ft. 3¼in.

Triple Jump.—1st, R. Morris, 42ft. 7½in. (record); 2nd, M. Bates, 42ft. 2½in.; 3rd, A. Winskill, 41ft. 2¼in.

Shot.—1st, P. Peace, 42ft. 3in.; 2nd, R. Kerner, 36ft. 1¼in.; 3rd, D. Osborne, 35ft. 1¼in.

Javelin.—1st, D. Osborne, 160ft. 5¼in.; 2nd, B. Hartley, 155ft. 2in.; 3rd, A. Winskill, 143ft. 8in.

Discus.—1st, D. Osborne, 125ft. 9in.; 2nd, P. Peace, 120ft. 2in.; 3rd, B. Hartley, 104ft. 11in.

Hammer.—1st, P. Peace, 85ft. 10in.; 2nd, B. Hartley, 63ft. 8in.; 3rd, D. Osborne, 56ft. 7½in.

Pole Vault.—1st, B. Hartley, 8ft. 3in.; 2nd, R. Kerner, 7ft. 0in.; 3rd, J. Domaingue, 7ft. 0in.

CRICKET

The Club Cricket headlines in one of the more reputable Sunday papers read " Guy's Crush Westminster Hospital ", and this indeed was the happy result of the first game of Inter-Hospitals Cup. Guy's never looked like losing their grip throughout the game, and only some nasty looking storm clouds, which appeared half-way through the Westminster innings, gave the Guy's Captain any cause for concern. An excellent start was consolidated by yet another fantastic innings by the left-handed Hambleton, who was still unbeaten at the declaration with the highest score of his career. The mammoth total (302 for 5 declared) was the largest made by Guy's that your correspondent can remember. Walter then proceeded to demoralise the opposition and the Westminster were bowled out after 100 minutes' batting for 50 runs.

At Queen's, Cambridge, Guy's ran out the victors by seven wickets. Queen's were dismissed for 105, and after losing their first three wickets for nine runs, Guy's appeared to be in trouble; however, Reekie (57) and Appleby (40), coolly took command and were one short of the century partnership at the close. The fascinations of the punts on the Cam always provide interesting entertainment in the evening and especially when propelled by an inebriated former Oxford undergraduate.

Another overwhelming victory was recorded against Incogniti—Guy's winning by 115 runs. Huins relieved Hambleton of the burden of scoring all the runs with an excellent half-century, and Guy's were dismissed for 159. The Incogniti side included several notable batsmen, including Reed, a candidate for the captaincy of Hampshire on the retirement of Ingleby Mackenzie, and an air of despondency crept into the Guy's changing room. Hostile bowling by Knott and Walter, the former bowling Reed, then wrecked the Incogniti batting. These two bowled unchanged and the sundries of 11 made top score out of the total of 44.

The new fixture at Highland Court proved extremely successful, and against a strong side containing two Cambridge Blues and two players of County experience, Guy's lost by 45 runs after the scales had swung in their favour at 111

for 3. Biggs (49) produced some characteristic strokes into the nearby crops, and on his dismissal, Guy's looked to be set for victory. However, Reekie (18) after an initial sighting shot for six was excellently caught in the deep and wickets began to tumble. Walker (19) was striking the ball well down the " fairways", but he and Cheeseman failed by five minutes to play out the last half-hour. A most enjoyable evening was spent in the delightful thatched clubhouse, and some members of the side learnt afterwards that even Bentleys can be difficult to start under adverse conditions.

The weather again took its toll againts Balcombe, where, after only six overs had been bowled, torrential rain decided the issue.

Reports and Results

CRICKET

GUY'S v. FLEET STREET STROLLERS

At H.O.P. Saturday, 16th May, 1964

Guy's, 208—4 wkts. dec. (G. Hambleton, 95).
Fleet Street Strollers, 149—9 (S. Davoodbhoy, 4—26).

GUY'S v. REIGATE PILGRIMS

At Reigate. 17th May, 1964

Result: drawn

This fixture is always regarded as one of the most attractive on the Guy's card—not exclusively for the reason that the Red Lion must surely be one of the few inns in the country to have its own cricket ground—and the game this year played on a sweltering Whit-Sunday lived up to expectation. Guy's unfortunately let the home side "off the hook" having made a good start and we had to be content with a draw.

The game started at midday with the Pilgrims in the field and throughout our innings the score moved steadily on without any major stands or collapses with most batsmen contributing something, although most of the lower order were out, ambitiously trying to reach the lake—and failing! Powell-Jackson (31), Crafts (32), Biggs (42) and Appleby (47) were the main scorers and the innings was closed at 195 for 8, leaving the opposition 160 minutes in which to make the runs.

The bowling was opened by Knott and Crafts, and in the hour before tea both bowled well, keeping the runs down and dismissing three batsmen. After tea the wickets continued to fall until with fifty minutes to go the Pilgrims were 116 for seven and Guy's were very much on top, partially due to two scorching catches by Silk and Appleby—the former making things look difficult, the latter exercising his usual ease! However, after this stage both the bowling and the fielding slumped a bit and at the close the Pilgrims were 162 for 8.

IAN REEKIE.

Guy's, 195 for 8 dec.
Reigate Pilgrims, 162 for 8.
Team: D. Silk, J. Powell-Jackson, J. Crafts, D. Biggs, M. Appleby, J. Norman, G. Hambleton, I. Reekie, E. Price, R. Myall, N. Knott (Capt.).

GUY'S v. INCOGNITI

At H.O.P. 26th May, 1964

Result: won by 115 runs

Incogniti put Guy's in to bat on a greenish wicket in a heavy atmosphere which promised help to movement of the ball through the air. This proved to be the case. Debenham bowled accurately, and runs did not come easily. At 14, Silk spooned an easy catch to mid-off; Powell-Jackson and Hambleton got their heads down and were just beginning to get on top of the bowling when Hambleton was run out, unable to regain ground after setting off for a run. Powell-Jackson was caught soon after, leaving Huins and Appleby to restore the innings. At 126, Huins was out for 54, having batted watchfully and comfortably, playing attacking shots to the right deliveries. Appleby was soon out, and the remainder added occasional runs, the score eventually reaching 159 all out. Debenham had taken 7 for 60 in 27 overs.

Knott and Walter attacked with the new ball. They found little life in the wicket and presented problems to the batsmen. Incogniti were not heedful of their threat, and insisted on playing attacking strokes from the start, with the result that they lost wickets. A quick run out from Appleby, and a superb catch at leg slip by Huins pressed home the advantage and Incogniti finally succumbed for 44, bowled and fielded out.

G. HAMBLETON.

Guy's, 159. (T. Huins, 54).
Incogniti, 44. (N. J. Knott, 6—15).
Team: D. Silk, J. Powell-Jackson, G. Hambleton, T. Huins, M. Appleby, S. Davoodbhoy, M. Jones, I. Reekie, E. Price, M. Walter, N. Knott (Capt.).

1st Round Inter-Hospitals Cup

GUY'S v. WESTMINSTER HOSPITAL

At H.O.P. Saturday, 30th May, 1964

Result: won by 251 runs

Guy's lost the toss and were surprisingly put in to bat on a good-looking wicket, on a hot, sunny day. Huins and Silk opened the innings against some steady if not hostile bowling by Yagelman and Cutting. They gave no cause for alarm apart from one easy catch given by Silk which the opposition wicket-keeper failed to accept. They had put on 60, easily the best opening partnership for Guy's this year, when Silk was dismissed for a useful 20. Huins was by now batting forcefully when he was out for an attractive 62. Powell-Jackson joined Hambleton and these two took the score to 131 by lunch.

The run-rate increased after lunch, and by the time Powell-Jackson was out, after playing well, the partnership had produced 106 runs. Hambleton marched inevitably on to his second century of the season, hitting two sixes and fifteen fours; his hard-hit hundred took him under two hours. Appleby made an unorthodox 27, and the innings was declared at 301—5, on the dismissal of Davoodbhoy. Hambleton finished with 136 not out, a worthy return for his many lovely strokes.

When Westminster batted, it was obvious that they were suffering from having spent four hours fielding in the sun, because they lost

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THE MANAGER, GUY'S HOSPITAL GAZETTE, 16, ST. THOMAS ST., S.E.1

several early wickets to careless strokes. This collapse was due to the hostile opening attack of Knott and Walter. Davoodbhoy and Huins polished off the tail, and they were all out for the meagre total of 50, leaving Guy's winners by 251 runs.

M. APPLEBY.

Guy's	
D. Silk, ct Hughes, b Warlan ..	20
T. J. Huins, ct Gledhill, b Hughes ..	62
G. Hambleton, not out ..	136
J. Powell-Jackson, ct and b Hughes ..	36
M. Appleby, ct and b Warlan ..	27
S. Davoodbhoy, ct Arnold, b Jagelman ..	8
Extras	12
Total (5 wkts dec.)	301

Westminster, 50. (N. Knott, 11-4-13-2; M. Walter, 12-5-24-5; S. Davoodbhoy, 5-4-3-2; J. Crafts, 2-1-4-0; T. Huins, 1.3-0-1-1).

GUY'S v. HIGHLAND COURT

At Highland Court. 31st May, 1964

Highland Court is a new fixture for Guy's and a highly satisfactory one it turned out to be, for not only was the cricket of a high standard but the ground itself is situated in extremely pleasant surroundings the other side of Canterbury.

The opposition were put into bat on a perfect track and it soon became obvious that reasonably high scores could be expected. Before lunch Walter and Davoodbhoy bowled well and Guy's went in to eat satisfied with the score at 91 for 4. After lunch there was a thin drizzle making bowling and fielding a little difficult and Highland Court took advantage of this, hitting some lusty blows before Knott polished off the tail with two half-volleys, leaving Guy's to score 218 to win in 150 minutes.

The hospital unfortunately set about this task a little slowly until we had to score at the rate of two a minute for the last 90 minutes. However, Biggs soon did his best to rectify the situation with a swash-buckling 49, including three sixes into the corn. The later batsmen all tried to continue to keep up with the clock and although partially succeeding no one really got "stuck in" and remained at the wicket for long enough to do good and despite a last wicket stand of 27 Guy's were all out for 172, two overs before the close, losers by 45 runs.

IAN REEKIE

Highland Court, 217.
Guy's, 172 (Biggs, 49).
Team: N. Knott (Capt.), D. Silk, G. Hambleton, M. Appleby, D. Biggs, S. Davoodbhoy, R. Henriques, I. Reekie, M. Jones, T. Cheeseman, M. Walter.

ROWING

U.H. BUMPING RACES

Guy's entered two eights for the U.H. Bumping Races, both of which rose a place in the year's order.

The 1st VIII, after rowing every night for two weeks before the race, were an extremely stylish crew. On the first night of the race, starting fifth behind the Westminster Hospital, they found that even their superlative skill was insufficient to cope with a rating of 40 strokes/min., and they were unable to get within less than ½ length of Westminster, though leaving the crew behind well in the distance.

The second night they rowed comfortably at 32, the rating only rising to epileptic heights as they bumped Westminster easily two-thirds of the way down the course.

On the third night Guy's now starting fourth behind Barts, were rowing at a low rate, aiming for a bump near the finish, when they were nearly surprised and caught by Westminster. Westminster were making a do or die effort to avenge their bump of the night before. They came up fast, their bows overlapped, their cox swung the bows to make the bump, and by the grace of God, missed by nine inches. After that, Guy's recovered from their shock, and held the other crew off for the rest of the distance, but failed to make any impression on Bart's.

This is the first bump the 1st VIII has made in five years, and they now lie fourth, behind St. Thomas's, Mary's and Bart's, none of whom made a bump this year. The 1st VIII was:—

Bow M. A. Preece.
2 C. A. Soutar.
3 R. D. Forrest
4 P. D. Venning.
5 A. J. Hodgkison.
6 D. P. Telling.
7 N. A. Watson
St. T. N. D. Peet.
Cox C. A. C. Pickering.

The second VIII did very well. On the first night they bumped the Westminster second crew without difficulty. On the second and third nights, they came within a few feet of St. Thomas's II, but failed to make the bump. This was a splendid effort. They now lie tenth, well inside the first division, and all credit should be given to J. S. Gregson, who captained and stroked the crew. They were:

Bow R. Salt.
2 K. Band.
3 J. Williams.
4 P. Ticehurst.
5 N. Pinckney.
6 D. Turner.
7 P. Sharpe.
St. J. S. Gregson.
Cox D. Evans.

HOSPITAL INFORMATION

HOSPITAL INFORMATION

GUY'S HOSPITAL

HURST AND STEPHEN WARDS

As from June 1st, Addision Division II will be named Hurst Ward and Mary Division II will be named Stephen Ward.

J. B. BLAIKLEY,
Superintendent.

APPOINTMENTS VACANT

GUY'S HOSPITAL, S.E.1.

Applications are invited for the post of **Senior Registrar in Child Psychiatry** with duties commencing on 5th August, 1964. Application forms are available from, and should be lodged with, the Superintendent, Guy's Hospital, London, S.E.1

EVELINA CHILDREN'S HOSPITAL OF GUY'S HOSPITAL, SOUTHWARK BRIDGE ROAD, LONDON, S.E.1.

Applications are invited for the post of **Resident Paediatric House Officer** (with casualty duties) for six months from 1st August, 1964. The appointment is recognised for the D.C.H. and consists of four months medicine and two months surgery. Candidates must be registered practitioners and should apply giving age, nationality, qualifications (with dates), and copies of three recent testimonials, to the Hospital Secretary by first post on **6th July, 1964.**

EVELINA CHILDREN'S HOSPITAL OF GUY'S HOSPITAL, SOUTHWARK BRIDGE ROAD, LONDON, S.E.1.

Applications are invited for the post of **Part-time, Non-resident, Casualty Officer** (senior House Officer grade) for six months from 1st August, 1964. Six morning sessions weekly. Salary 7/11th of full-time rate. Applications and copies of three recent testimonials should reach the Hospital Secretary by first post on **6th July, 1964.**

GUY'S HOSPITAL, S.E.1.

Applications are invited for the appointment of **Registrar in the Department of Dental Prosthetics** to attend on three sessions per week with duties commencing 1st October, 1964. Forms of application are obtainable from, and should be lodged with, the Superintendent, Guy's Hospital, London, S.E.1., not later than **Saturday, 27th June, 1964.**

PASS LISTS

UNIVERSITY OF LONDON

3rd M.B., B.S. Examination for Medical Degrees

April, 1964

Pass

I. R. McD. Anderson
Charlotte I. Askay
A. N. Bowden
D. J. Browning
K. M. Burshan
D. L. Carle
J. N. Davies
B. Donovan
A. Dowlatdad
R. E. Dziewanowski
G. Ebrahimzadeh
E. Eckersley
N. S. Faithfull
J. D. Goddard
Patricia N. Hall-Matthews
R. J. Hart
Janet E. Husband
G. T. Klauber
M. N Maisey
M. D. Middleton
D. G. Nancekievill
B. G. R. Neville
J. E. A. Oni-Orisan
R. J. Parker
R. N. Pearson
M. O. Rake
N. Ramsbottom
W. G. Reeves
J. P. Saunders
Evelyn J. Sherbel
K. F. Standage
R. L. Strickland
K. J. W. Taylor
G. I. Tennekoon
I. Vadasz
M. B. Williams
F. E. Willmott
N. S. Young

Part 1

A. Aribarg
P. Banks
M. G. Barley
J. T. St. J. Brown
P. J. R. Cox
P. J. Dickinson
H. Froozan
P. T. Hewlett
Sarah A. Marshall
M. B. Mitchiner
P. R. G. Needham
I. Reekie
P. B. Robinson
F. K. Simbo
R. A Sturge
B. T. B. Taylor
Fiona B. Anson

Part 2

P. K. D. Bush
M. Chan Chew-Koon
T. N. Jones
J. Lanbourn
H. Froozan
T. E. J. Healy
K. B. Hughes
T. B. W. Johnson
A. Palmer
C. R. Sanderson
Ilse B. Stevenson

Part 3

B. V. H. Bray
P. K. D. Bush
P. T. Hewlett
M. B. Mitchiner
Jean M. Parker
Susan M. Reay-Jones
J. P. Sedgwick

Part 4

M. Chan Chew-Koon
P. J. Dickinson
H. Froozan
T. E. J. Healy
P. T. Hewlett
K. B. Hughes
T. N. Jones
J. Lambourn
M. B. Mitchiner
P. R. G. Needham
A. Palmer
Jean M. Parker
Elizabeth A. Pepper
Juliet D. Pike
Susan M. Reay-Jones
C. R. Sanderson
J. P. Sedgwick
Ilse B. Stevenson

SCHOOL OF PHYSIOTHERAPY

Final Examination, May, 1964

Baker, J. C.
Barkham, S. A.
Boughtwood, H. M
Bridger, P A.
Burns, C.
Garforth, M. M.
Ginnings, J. C.
Hood, B. E
James, A.
Vanstone, E. A.
Wheeler, M. S.

NURSING NEWS

Entered

Staff Nurse J. Oni-Orisan to York Clinic.
Staff Nurse J. Andrew to Lydia.

Left

Staff Nurse J. Child from X-ray Theatre.
Staff Nurse F. Lennane from Dorcas.
Staff Nurse J. Simpson from X-ray Theatre.
Staff Nurse I. Wight from Addison.

BIRTHS

BAILEY.—To Ann and Martin Bailey, a daughter, on 9th May, at Portsmouth.

BARZEL (Brazil).—A daughter, Miriam Yonit Tal, was born on 28th May, to Monika (née Friedmann), B.D.S., (Lon.), L.D.S., R.C.S., (Eng.), and Alan.

CHAPMAN.—On 13th May, 1964, at the Royal Naval Hospital, Malta, to Annette and Anthony Chapman, F.R.S., R.C.S., a daughter (Louisa Mary), sister for Jane.

GILBERT.—On March 23rd, at the Norfolk and Norwich Hospital, to Anna and Michael Gilbert, a son, Richard John, and a daughter, Lucy Jane.

MARRIAGE

On April 4th, at Epworth, John Michael Dawson, M.B., B.S., to Bridget Helena Tyack, S.R.N., H.V.Cert.

DEATHS

CAMERON.—On April 6th, 1964, suddenly while on holiday, Hector Cameron, M.R.C.S., L.R.C.P., aged 57 years.

RICHARDSON.—of "The White House", Frant, Sussex. Dr. P. Lawrence Richardson, M.R.C.S., died at home on the 26th June, 1963.

SMALLBONE.—of 49, Heath Drive, Gidea Park, Romford, Essex. Died, 18th May, 1964.

YOUNG.—of "Crag Royston", Cherry-valley, Knock, Belfast. Dr. J. Campbell Young qualified at Guy's in 1926.

GUY'S HOSPITAL GAZETTE

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Editors *T. C. Davis*
B. H. Hicks

Sports Correspondent *N. J. Knott*

Guy's Hospital, London

PASSIM

Crime and Punishment

As the incidence of crime continues to rise, as our understanding of the criminal slowly improves, penal reform acquires a new social and ethical urgency. The boundaries between mental illness, character disorder and the moral offence are being rendered ever more tenuous by modern research, and we cannot doubt that many if not most criminals are in need of correction as much as detention. A report to the Labour Party on crime and the courts in Britain, and the setting up of a Royal Commission under Lord Amory, only serve to focus the problem at a higher level of public interest.

What is the true function of "the court"? To assess guilt, certainly, to inflict or prescribe the sentence, of course . . . Yet behind that word "sentence" lies the real question of the court's function. We must finally decide whether the sentence is to be society's pound of flesh, extracted for the debts of the wrongdoer, or a prescription for the health of the man; and, indirectly, of society. On the first basis, the sentence is essentially a deterrent, on the second, essentially therapeutic, and although the two can be combined the primary aim must be clear and unequivocal or neither will be adequate. The experience of centuries gives little support to the theory of deterrents, for in a world where this yet holds sway as the primary rationale of criminal law, the rising magnitude of world crime is appalling. Even with our present knowledge of the criminal mentality we could not possibly expect it to be otherwise. In most persistent criminal offenders there is a marked element of diminished responsibility, medical where not legal, secondary to a basic disorder of personality of greater or lesser degree. Are such subjects likely to be touched by the legal logic of the deterrent? They begin with difficulty in coming to terms with society; a few years' separation from it will not help them.

As emphasised in the report to the Labour Party, the young offender poses a very different problem. As such, the required approach is also very different from that to the adult criminal, and new channels may be needed. One wonders how much more could be done to select from such offenders the criminals of the future, and bring into play on these all the resources of modern psychiatry and criminology. Prophylaxis has always been the best cure, and there is a portion of our society in sore need of a cure.

To achieve such ideals in practice will be difficult, demanding courage and effort. It will require, firstly, more insight into the criminal personality in all its shades. More Institutes of Criminology will be part of the solution, but Clinical Psychiatry must also throw more attention onto the management of this anti-social group of patients. It will require, secondly, a new spirit in the prisons and detention centres, with the deterrent principle held well in reserve

and the positive approach in the forefront. The third requirement, an important one, is the teaching of this philosophy to the makers and executors of the law, and the public. The cost will be high in terms of finance, personnel and faith, but for society it will be a golden investment.

Medicine and the Law; Lord Gardiner took this as his title for the annual B.M.S.A. lecture delivered at Guy's last week. He stood tall, silver and still, almost a haughty tower in a sea, not calm but not breaking over him. No stuttering nor any faltering, he delivered effortlessly an intellectual, yet human treatise on the comparative similarities between his profession and ours. Anecdotes worthy of the chairman interspersed his tendentious text. Professor Keith Simpson was the most admirable choice; he even out-Gardinered the Lord, and at Law at that. We left the theatre consoling ourselves that they were both on our side, at least for the moment.

Johns Hopkins, Baltimore, has just added a separate 274-bed annexe to its already not mean facilities. It is solely for Paediatrics! (The Tower Block?)

Dr. Evans was one of the two British paediatricians who were invited to speak to mark this occasion. This is a high and just honour and some measure of the regard held for Guy's paediatrics.

Now that Guy's will soon boast a quadrangle (if one can have a three-sided quadrangle) we venture to publicise an idea that we think a good one. Grass. You've heard of it? You've *seen* some! Ah yes, that patch in the middle of Guy's. Nice? What about some more? In that three-sided quadrangle, imagine . . . green lawns, a circular drive, Thomas Guy at the centre of it all, and above all No Parking. But seriously, we really think it is a good idea . . .

GUY'S DIARY

JUNE

EXHIBITION.			*Goitre.*
29th	M.	1.00	Dr. VALE. Clinical Lecture. *Shock and the Anaesthetist.*
30th	T.	1.00	Mr. BLACKBURN. Clinical Lecture. *Intestinal Obstruction.*
JULY			
2nd	Th.	1.00	Dr. HARDWICK. Clinical Lecture. *Carcinoma of the Stomach.*
3rd	F.	1.00	Dr. TROUNCE. Clinical Lecture. *Drug-induced Nephropathies.*
6th	M.	1.00	Mr. TOMKINSON. Clinical Lecture. *Vaginal Discharges.*
7th	T.	1.00	Dr. FRASER-ROBERTS, F.R.S. Clinical Lecture. *Some Practical Applications of Genetics in Medicine and Surgery.*
9th	Th.	1.00	Mr. BEARD. Clinical Lecture.
10th	F.	1.00	Professor BUTTERFIELD. Clinical Lecture. *General Practice : The Guy's-Greenwich Project.*
13th	M.	1.00	Dr. BAKER. Clinical Lecture.
14th	T.	1.00	Professor ATKINS. Clinical Lecture.
16th	Th.	1.00	Dr. VAUGHAN. *Crime in Short Pants.*

Arthur James McNair

A. J. McNair died at the age of 77. His distinction in his profession (he had been Vice-President of the Royal College of Obstetricians and Gynaecologists) and the great influence he exerted on the practice of his speciality in Great Britain form a subject which is, perhaps, too impersonal for those of us who knew him as a Guy's man. In our own Journal we have the right to remember him particularly in his life in our own Hospital.

He came down from Cambridge and became a Guy's man when he entered as a clinical student on January 1st, 1909. When he died in Guy's, on May 30th, 1964, he was Consulting Obstetric Surgeon Emeritus to the Hospital he had served continuously for more than half a century.

He qualified in 1911 and immediately realised the heavy responsibilities and the clinical difficulties that were inseparable from the practice of midwifery in those days; this was the field in which he chose to work. He had already taught himself the art of manipulative midwifery worthy of a successor to Galabin and Braxton Hicks when war came in 1914. McNair immediately joined the Navy and no one could have contributed more to the morale of a destroyer in the North Sea in war-time. Afterwards, for most of his life he carried in his hip pocket a silver tobacco-box, inscribed "H.M.S. Tiger, Jan. 24, 1915"; it was a battered affair and not the most convenient of receptacles, but it was given to him by a young midshipman whose life he saved in a naval action. But action in the Navy was not frequent enough to satisfy McNair and he transferred to the R.A.M.C. as a surgical specialist and saw service with the Indian Expeditionary Force, and in Mesopotamia, and finally in the Afghan War in 1918-19. Even in this environment he found occasional opportunities to practise his chosen speciality in the midst of his Army duties. It is said that he was once seen to emerge from a palace in some city of the Middle East, garlanded with flowers over his military uniform as he returned to camp whence he had been summoned by the local midwives who had failed for many days to deliver the favourite wife of the Sheik. We at Guy's who knew his dislike of ostentation and who loved his modesty can understand the incongruity of the situation and share his sense of humour in it.

After the war, in 1919, McNair returned to Guy's and was given charge of the Maternity District. In those days, with between 2,000 and 3,000 deliveries a year, the District was a busy place. It was supported by only eight beds in Victoria for "difficult cases", so that a great deal of manipulative midwifery had to be undertaken in the home with unqualified gamps as the only nursing assistance. There was not any provision for regular ante-natal supervision and most complications appeared as unforeseen emergencies which had to be dealt with on the spot. It was here that McNair perfected his skill in

manipulative midwifery. He was one of the great masters of the art and he was certainly unsurpassed by anyone in his generation. No one could do a difficult version or a difficult forceps delivery so gently, so quickly, or so safely as McNair. But in spite of his outstanding dexterity, he had the vision to see that difficult manipulative midwifery was soon to become a thing of the past. He set to work to organise routine ante-natal care. Under his guidance and encouragement the Salomons Bequest to Guy's was turned to the establishment of Salomons Centre—one of the first ante-natal and infant welfare clinics in London. It was McNair who laid the foundations, and for more than thirty years set the standard that ought to be applied in modern ante-natal care. He was appointed Assistant Obstetric Surgeon to Guy's in 1925, Obstetric Surgeon in 1930, and Obstetric Surgeon Emeritus in 1952.

McNair's mastery of the classical skills and his vast experience enabled him to assess the value of innovations that were to change so profoundly the practice of midwifery in the next quarter of the century. He was quick to adopt the best of what was new. The first lower segment caesarean section operation that was ever performed at Guy's was done by McNair in 1925. He cautiously rejected what was meddlesome and ephemeral. The middle of the twentieth century has seen the revolutionary change from the old to the new outlook in midwifery and it has been fortunate for Guy's that this transition period was controlled by McNair. No other man, at that time, had his wealth of experience of the old, yet no one was more abreast with the times or more eager to change for the better. Guy's is justly proud of its great tradition of classical midwifery in the nineteenth century. No one knows where we shall stand in A.D. 2000; but for the middle of this century McNair will stand out as the man who guided us in the transition from the old to the new. If he had done nothing more, it would be enough to be thankful for, but that was just his technical contribution to Guy's. During his last illness he wrote the history of the Guy's Hospital Maternity District which recently delighted the readers of the *Gazette*. It was characteristic of his modesty that the account stopped short at the beginning of the twentieth century. The great name in the history of the Guy's District in this century is McNair.

His personality, and the good that flowed from it, has had its influence throughout the Hospital and School. He was a great supporter of student activities; a keen follower of the Athletic and Football Clubs and one-time President of the Boxing Club; he was a valued friend of the School of Nursing and its pupils; his knowledge and appreciation of the work of midwives was a tremendous asset to our School of Midwifery, and it is largely through his efforts that we remain one of the few London Teaching Hospitals still to enjoy the advantages of having a training school for midwives. He was the most meticulous and trusted of committee men. McNair always preferred to give his work, unseen. If he could conceal his identity as the author of some kind action or some successful conclusion, he was the more pleased. If, as so often happened, his hand in the business

was known or suspected, he would do his best to deflect the credit to other colleagues for any part they might have played. McNair's dislike of praise and his avoidance of honours made him, for some people, not always easy to approach except in time of need. In adversity there never was a man more easy to approach. There was about him a certain austerity, an economy of words and of emotion, that covered over his great humanity and his wonderful sense of humour.

McNair taught by example rather than by word; he had a most exact understanding of the use of words—both written and spoken, but he disliked lecturing. He spoke little, but those who worked under him learnt from his occasional remark and from his constant example more than they ever did from more voluble teachers. His silences could be a wonderful method of communication and they could convey the finest shades of praise or admonition. His unspoken kindness and consideration to his Borough patients were an object lesson to anyone who had any capacity for human feeling. For many thousands of Guy's men and women, McNair provided the standard which they must try to approach in their practice of clinical medicine.

There must be few people who have worked at Guy's in the past fifty years who have not gained something from his contributions to the Hospital he loved so much and served so well, but there are perhaps two groups of people who will ever be especially in debt to their beloved Mac. They are the men and women who trained directly under him and under his guidance learnt their art and gained their insight into human values—his R.O.s, his Registrars, and the Sisters of his wards. Finally, there are the mothers he personally looked after in their time of labour. Amongst these there must be thousands of Guy's nurses and wives of Guy's men; no one ever did, or ever will, deliver so many Guy's children or earn such gratitude for such skill and kindness.

It is, perhaps, proper to ask what Guy's gave to McNair. It gave him a field for work in a community with decent values. McNair regarded it as a privilege to serve, and in that service he found satisfaction.

McNair had, to support him, the greatest of all blessings—a devoted family who shared with him his busy life. His wife and daughters—all of them—in their different ways have served Guy's with him. He, who had brought so many children safely into the world, had the joy of seeing a newborn grandchild (his seventh) a few weeks before he died. What a wonderful life he had. How much richer we are, who knew him.

Hypertension and the Renal Arteries

At the Combined Round on Friday, 20th March this year a case of malignant hypertension was presented. In this particular case it was known that the patient had abnormal renal arteries, and the point at issue was whether or not these were the cause for his hypertension. After the case presentation the Round was addressed by Dr. J. J. Brown, of St. Mary's Hospital—Dr. Brown is working in the field of renal hypertension. His talk was recorded and the following is an abbreviated version of the recording: we thank him for his permission to publish it. He begins by describing the value of the intravenous pyelography and then goes on to review the renin-angiotensin theory . . . . . .

The Value of Intravenous Pyelography

When renal artery disease is suspected in a hypertensive patient, the intravenous pyelogram (I.V.P.) is a very valuable investigation. The I.V.P. does not, of course, demonstrate lesions in the renal arteries, but when these are severe characteristic changes usually occur in the pyelogram of the affected kidney. These appearances might be anticipated from a consideration of the results obtained by a "divided renal study" in these patients. During a divided renal study a catheter is passed into each ureter, and urine is then collected simultaneously from each kidney during several timed periods. These studies are based on the work in America of Selkurt (1949) and White (1951). Using the dog, these workers demonstrated that in resting conditions, the rate of urine flow from the two kidneys was practically equal. A constricting clip was then placed on one renal artery. This led to a fall in the urine flow from the kidney supplied by the constricted artery, while the urine volume from the opposite kidney remained unaltered. The fall in urine flow from the "clipped" kidney is partly due to the reduced filtration pressure distal to the clip, and partly due to increased reabsorbtion of water from the glomerular filtrate. This is probably partly due to the decreased rate at which the smaller glomerular filtrate passes the reabsorbtive tubular cells. Let us consider how this will affect the I.V.P.

The contrast media used in intravenous pyelography are excreted mainly by glomerular filtration. Their concentration in the glomerular filtrate of each kidney will, of course, be identical, but the concentration of these substances in the urine produced by the "stenosed" kidney will be greater than in the opposite kidney because of increased water absorption.

Since the density of the pyelogram is largely determined by the concentration of the contrast medium in the renal pelvis and calyces, a denser pyelogram is usually found in the kidney supplied by the stenosed artery. It is important to appreciate the implications of these appearances since the I.V.P. is such a simple investigation and in contrast to arteriography, is available in all hospitals.

Why do patients with renal disease and in particular cases of renal artery stenosis develop hypertension? I cannot, of course, answer the question; there are several theories, but I shall confine my remarks to the possibility that renin is responsible.

Tigerstedt and Bergman (1898) while studying this problem, made saline extracts of kidneys and demonstrated a rise in blood pressure when these were injected into rabbits. They called the pressor substance in their kidney extracts, renin. Renin is a protein of molecular weight approx. 50,000, and it has not yet been purified. When it is injected into an isolated limb perfused with blood vasoconstriction occurs, but if the limb is perfused with saline, injection of renin has no effect. In other words, there is some factor in blood, without which renin seems unable to act. This factor is now known to be a globulin upon which the enzyme renin acts to produce a polypeptide called angiotensin, which is a very powerful vasoconstrictor substance.

The clearest experimental demonstration of renal disease leading to hypertension is due to the work of Goldblatt. It has been shown that the blood pressure is frequently increased after constricting one or both renal arteries. If the constricting clips are subsequently removed the blood pressure often returns to normal. It has often been suggested that the hypertension produced experimentally in this way and also that found clinically in patients with renal disease is due to the liberation of renin from the damaged kidney and hence to vasoconstriction by the action of angiotensin. However, the methods used to demonstrate renin in the blood were not sufficiently specific, or sensitive, and there is no convincing evidence to support this simple explanation of renal hypertension. If hypertension is due to increased plasma renin and angiotensin, it should be possible to produce a similar rise in blood pressure by infusing these substances. Pickering and his colleagues infused rabbits with renin 15 years ago; although using impure renin they succeeded in maintaining hypertension for 2—3 weeks. We have recently infused angiotensin into rabbits for several months, with similar results. The rise of pressure in these experiments was only 20—30 mm. Hg. and attempts to produce more severe hypertension by increasing the rate of infusion were unsuccessful. With high rates of infusion the blood pressure increased initially to a very high level, similar to those obtained by experimentally constricting a renal artery, but the pressure subsequently decreased to normal although the infusion was maintained at the same rate. We are therefore faced with difficulty in attempts to produce severe hypertension with renin or angiotensin although there is some evidence that very small concentrations of angiotensin might produce a progressive rise in blood pressure. So much for the experimental animal, but what about man? For the past 18 months it has been possible to measure circulating renin by a specific and very sensitive technique. The results show that plasma renin in many hypertensive patients is normal, while in some it is high, and in a few it is below the normal range. The same scatter of results is obtained in hypertensive patients with proved renal artery stenosis. We do not yet know whether the increased renin concentration found in some patients is sufficient to cause the hypertension by direct vasoconstriction.

Renin and Aldosterone

This leads to the possibility that renin or angiotensin might act indirectly in some way. It has recently been shown that the production

of aldosterone by the adrenal cortex might be controlled by the renin-angiotensin system. It is also known that patients with adrenocortical aldosterone producing tumours (Conn's syndrome) are hypertensive and that aldosterone production is sometimes increased in patients with high blood pressure and renal disease. We have recently treated a hypertensive patient with aldactone, a drug which antagonises the action of aldosterone on the renal tubular cells. The patient's blood pressure fell over the course of the next few months from 240/140 to the normal range. This suggests that aldosterone was in some way responsible for the hypertension in this particular patient.

In summary: it is known that hypertension occurs with many renal diseases, the clearest example both experimentally and clinically, is renal artery stenosis. It is commonly held that this type of hypertension is mediated by the renin-angiotensin system, but there is no convincing evidence to support this suggestion. It is possible, however, that the renin-angiotensin system might still be implicated, at least in some circumstances, perhaps by stimulating the secretion of other substances. In the latter circumstances, it is possible that renin via angiotensin and aldosterone or other substances might be involved in the pathogenesis of hypertension.

Case prepared for presentation by Bruce Ricketts.

Vincent Glendining, M.S., F.R.C.S.

Vincent Glendining, known to all his friends as "Glen", died, at the age of 76, on the 25th May, after a short illness. He had been partially blind for a year and had accepted this depressing disability with great courage and cheerfulness. Glen came to England from New Zealand in 1904 and entered Guy's Hospital in 1905. On qualifying, the House Appointment which gave him pleasure was H.S. to the late Sir Arbuthnot Lane. He obtained the M.S. and F.R.C.S., developing into an expert and versatile Surgeon. In 1914, he entered General Practice in Watford with the late Dr. F. H. Berry, whose daughter, Frida, he married in 1915. During the 1914-18 War, he served for a period as an Army Surgeon, on the Western Front and in, what was then, German East Africa. On returning to Watford he continued in General Practice until 1947, during which time he was Honorary Surgeon at the Cottage Hospital and later, Senior Surgeon at the Peace Memorial Hospital. On retiring from Practice, he was appointed full-time Senior Surgeon at the Hospital, retiring in 1963 at the age of 65. As a Doctor, he never suffered fools or hypochondriacs gladly, but he never spared himself when treating patients with genuine illness. His colleagues, friends and patients will remember him as a devoted, careful Physician and as an extremely skilful Surgeon. As to his outside interests, he was very keen on sport. He played in Guy's Rugby 1st at the age of 17. He was well above the average at tennis and golf, enjoyed fishing and was an expert shot. Gardening interested him, particularly after his retirement. He will be sadly missed by his many friends. He leaves a widow, two daughters and a son, to whom we extend our deepest sympathy.

L.K.W.

COCA

To attribute every operation performed under local anaesthesia to Christopher Columbus seems somewhat far-fetched but without his discovery of the New World and the subsequent conquest of Central and South America by the Spaniards, the knowledge of the properties and use of Cocaine, the first local anaesthetic, might never have reached Europe. The Spanish conquerors of what is now Bolivia, Equador and Peru, observed that many of the Inca people acquired unusual, if only temporary, powers of endurance by chewing the leaves of a certain shrub, the pangs of hunger were allayed, the feeling of fatigue repelled, and sensation of pain dulled. The Coca shrub, Erythroxylum Coca, has been cultivated on the steep sides of valleys and spurs of the Andes for so long that, although a native, it is not now known in the wild state. Most of the American production of Coca is used within the countries concerned and the main source of supply for medicinal purposes is from plants introduced into and cultivated in Indonesia or from partial synthesis. The toxicity of Cocaine has always been a drawback so that it is not surprising that other less toxic and therefore more effective local anaesthetics have been produced.

RAUWOLFIA

It is not often in these days of synthetic compounds that a botanical drug comes into prominence as a source of an active principal used in the treament of a modern disease and in so doing stimulates a veritable flood of synthetic substitutes and improvements. Yet this is what has happened with Rauwolfia, practically unknown in this country until a few years ago but used in India for centuries as a non-specific general tonic. Investigation by modern methods revealed the presence of Reserpine, an alkaloid having potent anti-hypertensive properties, and providing the stimulus for still further research making available a whole armentarium of diuretics and hypertensives. It was also noted that Reserpine had a sedative effect in anxiety states and chronic psychoses with a tranquillising rather than a hypnotic action. It is possible that the use of Reserpine in this connection sparked off the work leading to the production of the very numerous tranquillisers, anti-anxiety and thymoleptic drugs now available. If this is accepted, it seems probable that no other crude drug has or will ever give rise, albeit indirectly, to so many new medicaments.

One final example which may be quoted is that of Liquorice. Recent interest in this long-established product started in 1950, when it was claimed that Liquorice Extract was beneficial in peptic ulceration. Inconclusive results were obtained until, in 1960, it was shown that an isomer of Glycyrrhetinic Acid, derived from Glycyrrhizin, the sweet principal of Liquorice, had anti-inflammatory and mineralocorticoid effects very similar to those of Cortisone and, it was claimed,

could be used for the treatment of peptic ulcer, as an anti-tussive and for its corticosteroid action. These claims were not, however, entirely new for, to quote Dioscorides, A.D.77, "Glycyrrhiza is good for ye burning of ye stomach and is a healer of wounds, for ye sharpness of ye arterie and is a quencher of thirst and for ye griefs in ye thorax" (From Goodyear's translation, 1655). It seems that modern science now vindicates Dioscorides's claims after nearly 1900 years!

Conclusions

The cases of Rauwolfia and Liquorice are not isolated instances. Recent researches indicate that two alkaloids, Vincristine and Vinblastine, isolated from the humble Periwinkle plant, may have important indications in the treatment of leukaemias and Hodgkins disease. The botanical drug, as such, may have virtually disappeared from the pharmacopoeias but the study of pharmacognisy and the isolation and investigation of new active principals may well, as we have seen, result in entirely fresh applications being found for them. Thus Coca leaf might still have been used as a stimulant and drug of addiction in its native country if Neiman in 1884 had not isolated Cocaine and Koller in 1885 investigated its local anaesthetic properties. Curare might have remained an interesting museum specimen of a native arrow poison if, as recently as 1935, King and others had not isolated the pure substance, d-Tubarine, and demonstrated its muscle relaxant properties. Together these discoveries have probably had nearly as far-reaching an effect on the development of modern surgery in recent years as the introduction of general anaesthesia and the acceptance of the principles of antiseptics had in the last century. The use of herbal remedies may have been empirical (though not necessarily irrational) and further research may well justify the use by our forefathers of still more items of materia medica, at present somewhat discredited. The application of modern scientific techniques in pharmacognisy is revealing the secrets and making possible the more efficient employment of the resources of nature in the healing of mankind.

This series of articles on old and new remedies was written for the Gazette by **Mr. J. Moore, F.P.S.,** *Chief Pharmacist to the Hospital.*

NOTICE

Catholic Society

Guy's Catholic Society and Guild of Catholic Nurses will be holding a Summer Party on Tuesday, 30th June, at 7.30 p.m., in the Upper Lounge of the Students' Club.

There will be beer, cider, coffee, light refreshments and music.

Admission will be 3s. 6d. at the door, and everyone connected with the Hospital is invited.

PETER SIMS, *Secretary.*

ROCKALL 1963

John Rickett

Most people have heard of Rockall which, through the B.B.C. has achieved a certain amount of fame. Few, however, know where it is—or indeed anything more about it.

Rockall is said to be the most isolated small rock in the world. It stands only seventy feet high and forms the summit of a vast underwater mountain that rises up from the bed of the North Atlantic Ocean. It lies about three hundred miles west of the Scottish Main land and some two hundred and fifty miles north-west of Ireland.

Its existence has been known for some four hundred years. It was originally known on earlier maps as Rocol or Rocabarra and it is only in the last two hundred years that its position has been charted accurately since the large number of shipwrecks in the area has made its exact location important.

Although this tiny islet is hundreds of miles from the nearest land it is well known to fishermen of many nationalities. Spanish, French and British trawlers are always in the area and frequently Russians use the Rockall Bank which is particularly plentiful in fish in all seasons. In severe weather, however, it is reported (by the R.A.F.) that huge waves break over the top and render the area highly dangerous because it is possible by ship to run on to the off-lying Helens Reef without sighting Rockall.

The worst Rockall disaster occurred in 1904, when the *Norge,* bound for New York from Copenhagen via the Pentland Firth, decided on a course about 10 miles south of Rockall. It was somewhat hazy early in the morning and at 7.30 a.m. she struck on Helens Reef. By reversing the engines the ship floated off again, but there was a vast rent in her bows and she filled rapidly and sank. Three of the eight lifeboats were smashed during their launching and in the remaining five only 170 people survived out of a ship's company of over six hundred. Many of the survivors were in bed at the time she struck, were dressed solely in nightgowns and were suffering from exposure at the time they were picked up; some seven days later.

It was partly curiosity and partly an intense desire to land on Rockall that made me accept an invitation to visit Rockall by yacht last June. I joined Iain Rutherford and his crew, Paul Campbell and Dick Foster, in Glasgow before we set off the following morning from Crinan on the West Coast of Scotland. In order to catch a favourable tide through the notorious Gulf of Corrievrecchan we rapidly loaded stores and weighed anchor at 3.0 a.m. in a gentle breeze. Our transport was *Aeolian,* a beautiful 11½-ton yacht built in 1953.

The morning that we set out the wind was so light that we had to use the auxiliary motor and this enabled us to get clear of the mouth of the Corrievrecchan before the tide became unfavourable. During the afternoon a breeze sprang up and we made good progress, covering about one hundred and ten miles in the first

twenty-four hours. We continued to make good progress all the following day, the wind freshening in the afternoon and necessitating our taking in four rolls in the mainsail. That night the wind increased further and it looked as if we were in for a full gale. We were not to be disappointed for the next day it came, and we hove to under staysail and mizzen, remaining dry and making half a knot to windward, but on a southerly course and *not* in the direction we wanted to go.

It was my turn to be cook of the day but this did not involve me in any work as the swaying of the yacht was so violent that no one felt like eating.

One of the advantages of sailing in modern yachts is that they possess modern gadgets that can make all the difference to one's personal comfort whilst at sea. *Aeolian,* I was gratified to note when I joined her, was fitted with an oil-burning stove and this would be a great asset in keeping the cabin warm and drying our clothes whilst at sea. Like all modern gadgets, this one had its drawbacks. It only worked with the yacht on the port tack and then it produced a wonderful fug in the W.C.

The following day the gale had blown itself out and we got going again under full sail. We had been blown off our course by the storm and had to make up the lost distance planning to arrive at the rock during the daylight of the following day. The sun luckily appeared for long enough for us to fix our position reasonably accurately and that evening we were about sixty miles south-west of Rockall. So good was our progress, however, during the night that at midnight it was decided that we were too close to the rock to continue in safety. We hove to and awaited the dawn, which came at about 3.0 a.m. By 5.0 a.m. it was light enough to continue and we set off again. A trawler confirmed our position as correct and at 9.0 a.m. we sighted Rockall at seven miles distant. This achievement on the part of the navigator could not be allowed to pass unnoticed and the skipper accordingly ordered all hands to the mainbrace with immediate restoration of morale all round. The rock was a fine sight at close quarters—there was a considerable swell and with each Atlantic roller the sea would lash and pound this slab of granite, sending the spray seventy to eighty feet high. Landing was, unfortunately, clearly out of the question and we sailed by, taking photographs. There was a large bird population consisting of two to three hundred gannets and two harassed looking guillemots that occupied a small ledge by themselves.

There was no evidence from what we could see of the rock that any bird was nesting. It must be only in the calmest of years that any bird could possibly hatch eggs successfully.

Hasselwood Rock lies about two hundred yards to the north. It becomes uncovered in the trough of the larger waves. As we sailed between it and Rockall it looked like some huge sea monster awaiting its prey. The face of Rockall we could see at close quarters was riddled by many hundreds of holes, into which the birds presumably crawl to get what shelter they can from the sea during storms. The

top of the rock was covered with guano which, being very slippery, has nearly caused the untimely demise of those few who have climbed it. It gives the rock the appearance of a ship under sail when seen at a distance, and it may, in fact, have confused many mariners in the days before charts were printed and so lead to its late recognition as a shipping hazard.

Time was beginning to run out and so it was necessary to start the engine and we chugged off to St. Kilda. St. Kilda is a fascinating group of islands and is the outer-most of the Outer Hebrides. It is a place of superlatives. It has the highest cliffs in the British Isles, the largest gannet colony in the world and the worst weather in the British Isles. It also boasts its own peculiar species of sheep, field mouse and wren.

After the perfect peace of the beautiful weather at St. Kilda we had a further lovely day of sailing through the Sound of Harris, in company with a school of porpoises, but we were rudely brought back to reality by a stiff south-westerly that blew up in the night, and reached gale force fury by the next day. As the grey dawn broke we were able to bear away slightly, ease the sheets and round the Point for the sheltered Sound of Mull.

The remainder of the passage was uneventful and as if to add insult to injury the wind died, forcing us to motor part of the way home.

REVIEWS

VENEREOLOGY FOR NURSES

by R. D. Catterall. 1st Ed. English Universities Press 1964. Pp. 146 *Price* 8s. 6d.

For the student nurse, this volume will prove a useful source of reference; but the illustrations are poor. Unfortunately the section dealing with tertiary syphilis is brief—possibly reflecting epidemiological trends—although this disease is probably still the one most frequently observed in the wards. Nurses specialising in venereology will find enough information to form a basis for their practical clinic work, before adapting to the idiosyncrasies of the physicians with whom they work. The venereal maladies, other than gonorrhoea and syphilis, receive meagre coverage in view of their high incidence.

The recent influx of large numbers of negroes into this country has also led to an increase in the non-venereal trepanematoses seen in the clinics. This book is the first in its class to describe adequately their diagnosis and treatment.

D. COBELL.

LECTURE NOTES ON PHARMACOLOGY.

by J. H. Burns, 7th Ed. Blackwell Scientific Publications. 1964. Pp. 143. *Price* 10s. 6d.

The ninth edition of this little book has lost none of the lucidity which characterises Professor Burns' books. It is aimed at the 2nd M.B. student, giving him a clear, though elementary, basis for his future knowledge of Pharmacology. The book is very well set out and succeeds in its objective. The index has unaccountably been curtailed since the previous edition so that it only contains a few references to specific diseases. Although this has probably been done for simplicity, it seriously limits the further usefulnes of the book. Proprietary names make a sporadic appearance and one feels consistency on this point would be helpful. These are minor points, however, and the book is strongly recommended to the 2nd M.B. student provided he remembers that these are lecture notes and not a complete course in Pharmacology.

PETER D. WARREN.

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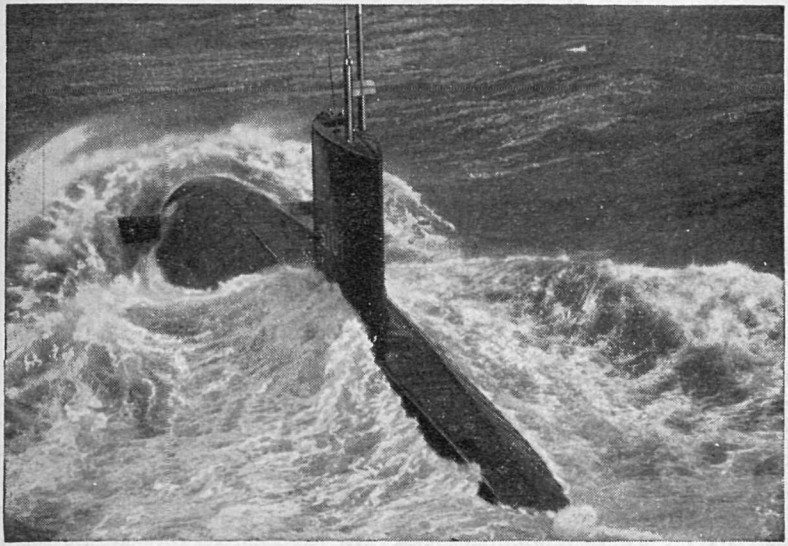

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MO.2D

Bill Maskell

As one of the largest dental schools in England Guy's is a rather unimposing edifice from the exterior. Lack of living space means pigeon-holing those services which are subservient to the main business of dentistry. Thus the dental school porter is relegated to a nook inside the main building, a display of mail for students obscuring all but one pane which slides willingly to uncover Bill in his cluttered nest.

William Henry Maskell has worked at Guy's for only eight years, but in this comparatively short time he has become well known for his willingness to help, and his popularity with the students. He is a Wandsworth man who started life as a messenger for the District and Theatre Ticket Company. Uniformed in a pill box hat, he travelled the length and breadth of London for the princely wage of nine shillings every week. Then followed eighteen years' work in a chemical firm, which was interrupted for one year by service in the Royal Artillery.

His wife has worked in the Spit and his eldest son is on the present Guy's staff. Bill has nine children, one of whom is a nurse and is soon to emigrate to America. He is a home-loving type and his only hobby is following the fortunes of his son who is a talented guitarist. Bill would have liked to pursue a naval career, but poliomyelitis struck when he was a child and has left him with some physical disability. His job as porter to the dental school entails opening and closing the building daily, mail sorting and indicating the way to departments to those whose toothache prevents them from reading directive notices. Some years ago he was in charge of distributing free toothpaste and brushes to students taking part in a clinical trial. Bill is always available to give advice and answer enquiries from all quarters. He is an amiable person who is very happy in his work and has an immense respect for the hospital and the people with whom he works in the School of Dentistry. He hopes that his future will mean working at Guy's for as long as possible, followed by a visit to Canada, a country he has always wanted to see.

We at Guy's should be proud of our porters, whose tasks, often menial and irksome, are executed with dignity and correctness. Serving many functions, they are at hand to offer help to patients and consultants alike and in a way which gives little cause for complaint. Even their uniform recalls to mind the fact that we are an established hospital, and it is men such as these who perpetuate part of our atmosphere and tradition. It is fortunate that as a body of men they have retained a pride in their work in an era when few comparable jobs can boast of men who are, in a fashion, dedicated.

CORRESPONDENCE

Spittooth

SIR, It must be of some considerable consolation to generations of " Guy's Men" to read in *The Gazette* that " Bitter Beer " and "Peppermint Sweets" have probably not been responsible for any permanent damage to their teeth. One wonders whether a line of research lies in submerging some gastric mucosa in " Creme Solferino" " Potage Garbure", etc.

Yours, etc.,

B. A. TUDGAY.

30, High Street,
Ticehurst, Sussex.

Dental Anniversary

SIR, Readers of the *Gazette* will already know that the Governors of the Hospital and the School have decided to celebrate the 75th anniversary of the foundation of the Dental Hospital and School by holding a dinner at the Dorchester Hotel, London, W.1, on Wednesday, 14th October, 1964.

The organising committee is sure that this important function is one which Guy's-trained dental surgeons will support by their presence since it marks a milestone in the evolution of the Dental School. It is anticipated that a number of distinguished guests will honour us with their company and it is hoped that male graduates will be accompanied by a lady, and that lady graduates will be accompanied by a gentleman.

Those who intend to be present will greatly assist the organisers of the dinner by completing and returning the slip inserted in this copy of the *Gazette* as soon as possible (enclosing a cheque in payment). The cost per head is £4 4s. 0d., which includes the dinner, wines served during dinner, brandy or liqueur, and cigars and cigarettes.

Please apply for your tickets at once to ensure that you are not disappointed.

Yours, etc.,

F. S. WARNER,
Dean of Dental Studies.

Guy's Hospital,
London, S.E.1.

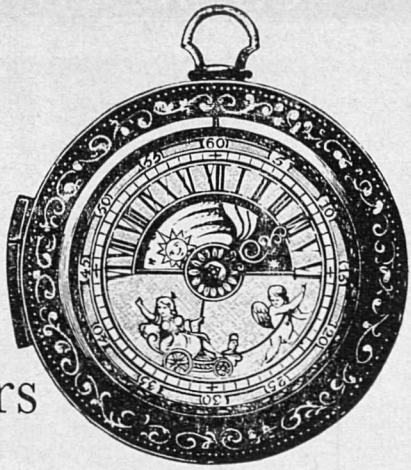
NOTICE

Art's Abroad

It is hoped that the coming summer holidays will inspire the usual high number and standard of entries for this year's Art Exhibition—which will be held in late October. All Guy's people, past and present, will be invited to submit their pottery, sculptures, paintings and drawings, etc. Further details will be announced nearer the date.

JENNIFER R. TOWNSEND,
Hon. Sec., Art Society.

acts in minutes– lasts for hours



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SPORT

CRICKET

The " glorious uncertainty of cricket " is a familiar expression to many lovers of the sport. This theme was appropriately demonstrated in the recent Inter-Hospitals Cup game when hostilities were renewed with St. Mary's Hospital. With apparently no chance, Guy's not only dismissed the opposition for a lesser total, but showed them that they were capable of perhaps administering a heavier defeat had they won the toss. The tension for players and spectators alike never eased from the first ball that was bowled until the last wicket fell. With Guy's out for a pitiful 76, it became obvious that with the pitch getting easier, only a miracle would save Guy's from defeat. The miracle came and some very long faces soon began to manage a smile. Fortunately, two warriors of the side could remember having been dismissed by Bognor four years previously for 78, and then the opposition being back in the pavilion before tea for 62. So at least one of the two thought that if it could be done once, why not again? The bowlers rose splendidly to the occasion and with nothing being given away in the field, the batsmen were demoralised, and soon after tea the captain's prayers were answered and Guy's were victorious by 18 runs.

A similar story of success was recorded in the Junior Cup when a below strength team beat St. Thomas's in the knock-out competition by 46 runs.

In the previous game against Hampstead the senior side's morale took a heavy blow when they were bowled out for 57 runs. With the opposition at two wickets down for 6 runs, rain intervened for a short period of time and seemed to take all life out of the wicket. On restarting, Hampstead comfortably won by seven wickets.

Far too much space has been given already to the abominable weather that we have been having, but yet again it interfered, this time in the Past v. Present fixture. Having dismissed the Past for 122, play had to be abandoned with the Present at 71 for 3 wickets.

The games against Dulwich Hamlet and Wadham College followed the same pattern as the first two days of the second Test, but play against R.N.V.R. proceeded uninterrupted despite some clouds which looked as though they were about to unleash a monsoon. Davoodbhoy again polished off the lower order batsmen with a spell of 5 for 14, and R.N.V.R. capitulated for 71. Powell-Jackson (43) dispelled any memories of the recent cup game and Guy's ran out winners by seven wickets.

ATHLETICS

Congratulations to the athletics club on their success in the United Hospitals Championships. All opposition was completely smothered by Guy's, and the team followed in the footsteps of the hockey and soccer clubs by winning a third major trophy. R. Morris again took top honours in the high jump with a prodigious leap and he also won the triple jump. Barford, Peace, Hartley and Osborne gained further victories for Guy's to leave Guy's victorious by a large margin.

BLUES COMMITTEE

The following are the Blues awarded by the Blues Committee for the Winter Sports, 1963-64:—

Rugby Football Club:

J. A. Edgar, E. S. Price, J. E. Davies — Full Blue

R. S. Kerner, H. W. MacGregor, J. C. Thomas — Half Blue

Association Football Club:

W. W. Davies, J. Cutler, A. J. Atkins, P. D. Davies — Full Blue

J. D. Powell-Jackson — Half Blue

Hockey Club:

K. E. Haynes, A. Hurst, J. R. P. F. Liddiard — Full Blue

C. A. Brooks, M. I. Appleby, P. J. Rushmer — Half Blue

Boxing Club: No awards made.

Boat Club and Squash Club: Recommendations not received by the date of the meeting.

CRICKET

GUY'S v. ST. MARY'S
Second Round Inter-Hospitals Cup

At H.O.P. Tuesday, 9th June, 1964.

Result: won by 18 runs.

Often the toss plays a very important part in Cup games, and with Mary's winning it, they were already at a considerable advantage. The wicket still had some moisture in it and there were some ominous green patches scattered dangerously near a length. Guy's were asked to bat and were soon in considerable trouble at 28—3. However, with Hambleton beginning to middle the ball, no great cause for concern was given until a delivery from Ross rose sharply above bat level and dropped on to the top of the stumps.

At lunch Guy's were 68—7 after two-and-a-quarter hours batting and it looked as though the tail was going to have to wag as never before. However, this was not to be and Guy's were dismissed for their lowest total (76) in a Cup game for a long time.

The wicket was by now drying fast and lacked any pace, and it was apparent with this small score that the bowling was going to have to be extremely accurate and the ball kept well up to the bat. A really hostile field was set, and with only three men in front of the bat, Knott and Walter set off to bowl the overs of their lives.

With four runs on the board, Walter claimed his first victim, leg before, and Guy's were in the hunt. Things then began to look gloomy as Walker drove Knott handsomely through the covers for four, but then chasing an outswinger, he edged the ball through to Price. This was a badly needed wicket and with Walker gone at 18 a big blow had been struck. Reid and Moore then proceeded to push the score easily along until at 31 Knott caught and bowled the latter and Walter claimed Reid, lbw, at 35.

Things were now beginning to go the way of Guy's for the first time, but even at this juncture a win did not seem possible. Davoodbhoy was brought on in place of Walter, and with canny variation of pace and spin he proceeded to mesmerise the opposition batsmen. A superb catch at slip by Silk ended a dangerous looking "stand", and at tea St. Mary's total was 58—8 and at last the odds were heavily on Guy's. After tea two wickets fell for no further score to give Davoodbhoy figures of five wickets for six runs, to end a game which few who saw will ever forget.

NIGEL KNOTT

Guy's

T. Huins, ct Wintle, b Ross	20
D. Silk, ct Wintle, b Ross	0
J. Powell-Jackson, ct Jeffries, b Ross	0
G. Hambleton, b Ross	32
M. Appleby, ct Simmons, b Moore	2
J. Crafts, b Ross	0
S. Davoodbhoy, ct Simmons, b Ross	0
M. Jones, b Walker	5
E. Price, lbw, Moore	7
M. Walter, ct Walker, b Moore	0
N J. Knott (Capt.), not out	6
Extras	4
Total	76

St. Mary's, 58. (N. Knott, 17-6-25-2; M. Walter, 13-5-25-3; S. Davoodbhoy, 7.5-2-6-5.

GUY'S v. HAMPSTEAD

At H.O.P. Sunday, 7th June, 1964.

Result: lost by 7 wkts.

After heavy rain the night before, the pitch appeared to be very green, and Guy's were asked to bat. Cobham, a Cambridge Blue, bowling at a very variable medium pace and moving the ball in the air and off the wicket, never gave any of the batsmen any chance of scoring many runs, and only Hambleton reached double figures. Hambleton, having been dropped in the covers, struck one lusty blow for six, but continued to try to play shots on a slow wicket and brought about his own downfall when he was caught in the deep.

Beecham saved Guy's some embarrassment when he bowled the Hampstead captain with his second ball and took another wicket in his second over. After a short intermission for rain, however, the wicket assumed very docile properties and the opponents had little difficulty in knocking off the remaining runs, losing one more wicket.

NIGEL KNOTT

Guy's, 57. (D. Cobham, 8—25.)
Hampstead, 58—3.

GUY'S v. ST. THOMAS'S
Junior Cup

Guy's, 132—8. (D. Biggs, 42; M. Pagliero, 36.)
St. Thomas's, 86—9. (R. Beecham, 4—34.)

Result: won by 46 runs.

GUY'S v. R.N.V.R.

At H.O.P. 22nd June, 1964.

Result: won by 7 wkts.

Guy's, 72—3. (J. Powell-Jackson, 43.)
R.N.V.R., 71. (S. Davoodbhoy, 5—14.)

PAST v. PRESENT

At H.O.P. Saturday, 13th June, 1964.

Result: abandoned, match drawn.

Past, 122. (J. Williams, 33.) (N. Knott, 4—22.)
Present, 71—3. (G. Hambleton, 34; H. MacGregor, 30 n.o.)

ATHLETIC CLUB

U.H. ATHLETIC CHAMPIONSHIPS, 1964.

The 86th Annual Athletic Championships of the United Hospitals A.C. were held at Motspur Park on 10th and 13th June. Guy's achieved a most outstanding victory and the Athletic Club thus became the third club in the Hospital to gain Inter-Hospitals Honours this season.

This is Guy's first win since 1958 and their 24th since the Championships first began. It is difficult to find an adjective to express this overwhelming victory in words, but numerically Guy's gained nearly twice as many points as their nearest rival, and we turned the 1963 points deficit of six, when we came 2nd, into a huge lead of 46.

The Heats and preliminary rounds were held on the Wednesday evening, following which Guy's were in a reasonably strong position and full of optimism, but having no clue of the onslaught which was to come. We gained a spectacular start when R. Morris won the Triple-Jump with a distance of 43ft. 9ins., with M. Bates a close 2nd some 7ins. behind. P. Peace and D. Osborne threw well against strong competition in the Hammer to secure 5th and 6th places respectively, whilst A. Lakin ran gallantly into 6th place in a gruelling three miles final.

On the Saturday, the majority of the Finals were held on a rather dull and damp afternoon—but the sun shone radiantly throughout on all the Guy's athletes taking part! In only four events was a Guy's man not in the first three. Personal best performances were achieved by three competitors and others reached their best efforts this season.

In the sprints, D. Barford—in his first season at Guy's—ran brilliantly to take the 220 yds. title in 22.9 secs., and was narrowly placed second in the "100" with a fine finishing burst. I. Morgan, another fresher, was in magnificent form. He ran a stylish race in the 440 yds. Hurdles to finish second against the International, Tom Bryan, with a personal best time of 55.2 secs. In the "quarter", Morgan repeated this position to record 50.3 secs. in an exciting finish.

A. Winskill, the Captain, set a fine example to his team by a 2nd place in the High Hurdles (16.2 secs.), with J. Domaingue snatching a close 3rd only one-tenth of a second slower. Winskill continued his success in smashing his own best time by nearly two seconds to take third position in the 440 yds. (51.4 secs.), and ran another courageous race in the Quarter Hurdles (3rd.).

A. Lakin did not win his race, but provided one of the most memorable and spectacular displays of the day in the Steeplechase. His death-cheating dive into the water-jump defies description, but his plucky run into 5th place, after total submersion and the loss of his spectacles, was typical of the spirit of the whole team.

Guy's showed an even greater dominance in the field events than on the track. Richard Morris gave a fine display of jumping in the High Jump to win at a height of 6ft. 2ins., with W. Annan a good second with 5ft. 10ins. Morris's versatility earned him a further 3rd place in the Long Jump (21ft. 1in.), and he was rewarded for his efforts by being awarded the B.M.A. Challenge Cup for the Most Outstanding Athlete. Even in the wet conditions, B. Hartley managed a throw of 180ft. to give him victory in the Javelin.

P. Peace deservedly won the Shot with a splendid put of 41ft. 11¼ins., after several years as runner-up in the Championships. In the Discus, D. Osborne became a further competitor to break his personal best with a winning throw of 132ft., whilst Peace gave admirable support in coming second (126ft. 10ins.).

The only disappointment of the match was the disqualification of the Sprint Relay Team (Tong, Jones, Bates, and Barford) regarding a disputed faulty change-over, after an impressive dozen-yard win. However, the day ended in the right atmosphere with the Medley Relay. J. Wheeler ran with great determination in an excellent first leg of 880 yds. to finish just behind the St. Mary's runner. Winskill and Barford closed the gap still further on the two furlongs and Morgan brought the whole ground to its feet with a breath-taking win on the home straight of the quarter-mile anchor leg.

Finally, the highly proficient Guy's Tug-of-War team (which was so well organised by Mr. Tomkinson, the President, and P. K. Peace) swept through the early rounds and Final without a single pull against them. In spite of his secret training programme in the States, a superbly fit-looking Mr. Tomkinson failed to gain a place in the Consultants' Walk (handicap), but had the distinction of beating Dr. Roger Bannister!

The whole occasion was a triumph befitting the competitive spirit and standard of the Club throughout this year. It was a just reward for the dedication and leadership of the captain, Andrew Winskill, who only a few months ago was out of athletics with a fractured fibula.

Above all, it was a magnificent team effort which carried us to this level, in a sport so often regarded as highly individual.

Result.

1st— Guy's, 105 pts.
2nd—St. Mary's, 59 pts.
3rd—Bart's, 41 pts.

D. TONG

GOLF SOCIETY

The President's Match.

Due mainly to the energy and kindness of Dr. MacLean, a match between Guy's past and Guy's present was played at Tandridge, on Sunday, 7th June.

Morning Foursomes.

Dr. D. Holmes and Mr. Lewis-Lloyd beat
E. S. Baird and D. Adams, 2 and 1.

Dr. R. J. Cockerill and Mr. R. H. F. Brain beat
A. B. Bevan-Jones and M. J. Brummitt, 2 and 1.

Dr. K. S. MacLean and Mr. M. Pagliero lost to
V. G. Williams and P. Mewton, 7 and 6.

Lunch was much enlivened by Dr. MacLean's exhortations to his team re the afternoon's singles, and the Guy's team, with memories of past nobbling attacks still fresh, steadfastly refused large liqueurs, generously offered by the opposition.

In the afternoon singles, both top matches were close affairs, ending on the last green. Mr. Lewis-Lloyd, a surgeon from St. Olave's, sweetened the pill of losing to Bevan-Jones by holing in one on the short fifteenth, a move most highly welcomed by all participants. Mr. Brain lost to Brummitt, mainly due to a lack of rapport between himself and his driver. Dr. MacLean was overheard complaining bitterly about the opposition's phenomenal putting.

The match finished in grandstand style, when Pagliero, playing Williams, required to hole a yard putt on the last green, to win his match, and halve the whole game. With the impressive calm befitting a S.H.O. on the Thoracic Unit, the ball was nonchalantly holed, thus ending a great day's golf.

Singles Results.

Dr. D. Holmes beat E. S. Baird. 1 hole.
Dr. R. J. Cockerill beat D. Adams, 1 hole.
Mr. Lewis-Lloyd lost to A. B. Bevan-Jones, 3 and 2.
Mr. R. H. F. Brain lost to M. J. Brummitt, 3 and 2.
Dr. K. S. MacLean lost to P. Mewton, 3 and 2.
Mr. M. Pagliero beat V. G. Williams, 1 hole.
Match result: 4½—4½.

The U. of L. Championships were held at Denham on Wednesday, 3rd June, with 36 holes medal event for individual and team awards.

In the Eckhoff Cup Competition, A. B. Bevan-Jones finished runner-up with fine rounds of 78, 78. He is also to be congratulated on being elected to captain the University next year.

The Hospital also finished second in the Beveridge Trophy—the team event, with rounds by M. J. Brummitt, 81, 79; G. Ritchie, 90, 87.

MICHAEL BRUMMITT

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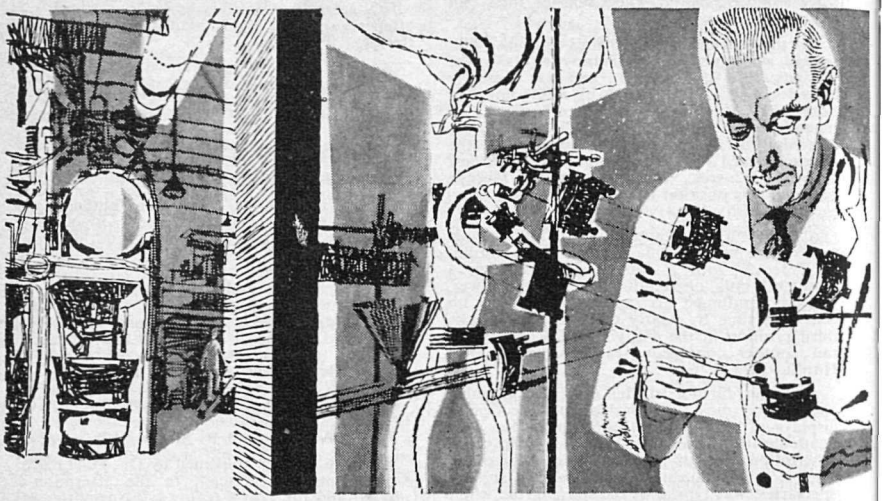

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Dr. G. P. Williams, to Rotherwick Court, Shipston-on-Stour, Warwicks.

BIRTHS

Adoption by Heather (neé Marshall, S.R.N.) and Christopher D. W. Davies, M.B., B.S., a daughter (Sarah Elizabeth), born November 1st, 1963, a sister for Mark.

KINDER.—On May 29th, to Audrey and Hugh Kinder, a son, David Hugh.

LILLICRAPP.—On 20th May, 1964, a son, Richard David, to David and Gwyneth Lillicrap (neé Roberts), a brother to Stephen and Susan.

DEATH

R. V. Warren, D.F.C., L.D.S., R.C.S. Eng., suddenly at his home, The Digey, Wellington Road, St. Saviour, Jersey, C.I., aged 51 years.

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Vol. 78
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Editors *T. C. Davis*
B. H. Hicks

Sports Correspondent *N. J. Knott*

Guy's Hospital, London

PASSIM

Ring the Change

During the past few months the pages of the *Gazette* have included short one-page articles on the historical facts and fallacies of drugs and also a series about some of the people that one sees often at Guy's but knows little about. From pills and personalities we now move on to palates. When one thinks of our surroundings, *nos banlieux*, there is little doubt that several taverns have provided a sobering and reflective background to our student days. These must be remembered by any Guy's man who has peeped outside his shell. The Miller is the closest and possibly the dearest, but others, such as the King's Head, the George, the Ancient Briton and both the Grapes will hold especial and specific memories. It is this which has prompted us to scratch and irritate a little beneath their boisterous veneer and to find out some of their history and to want to record their story. Naturally this must travel glass in hand with their landlords and naturally they have plenty to say. A series highlighting the up and down world of our after-hours companions will be starting in the near future.

Guests for the Summer

Those Borough pubs will soon be wed to accents unfamiliar in their Guy's-frequented bars. A number of students from abroad are working and viewing in the Hospital during the summer months, and no doubt will be soon familiar with our haunts and less disreputable habits, both at work and at play. Offering them our warmest welcome, we trust that the dreaded British reserve will not stand in the way of many friendships and an enjoyable stay.

One small deficiency in our hospitality often mars the picture. Any British student who has worked in American hospitals will vouch for the enthusiasm of his welcome and the thoughtfulness of his hosts. While we lack nothing in the spirit of welcome, we hope, could not more thought be applied to the material comfort of our guests? Funds do not allow us to provide free accommodation or board, but Guy's could surely improve on the present situation, in which many a visitor is simply referred on arrival to the University Lodgings Bureau. A bed-sitter in Notting Hill is not the finest social environment in which to meet England. Before the visiting student arrives, some effort might be made to arrange a stay in a flat with Guy's students, or even hostel accommodation, so that hospitality becomes something living rather than a matter of words.

From many aspects, this hospitality should come from the student body rather than the Medical School, and the Students' Club could here perform a great service both to the guests made more welcome, and the Guy's hosts graced with their company.

Many at Guy's will have heard or read of the drama off the coast at "The Thatchings", when the Royal Air Force swooped to the rescue of a student, a nurse, a secretary and a towel, afloat in a dinghy. Besides throwing fresh light on the attractions of the Guy's "rest"

home, it sparks new faith in the enterprising spirit of the modern Guy's student. Further temptation for the Air-Sea rescue team may have been the ulterior motive behind another aquarian escapade, a heroic swim by two late examinees from "The Anchor" to London Bridge wharf . . . *per ardua ad aqua,* with a vengeance. Faced with these efforts, the news of that poor American lady who started to swim from Newfoundland to England had us checking through the records for missing Guy's ladies. Next on the agenda is a suggestion for an open pool in that front courtyard, dinghies and goldfish provided, so that everyone from the Minister of Health downwards can park their own canoe, in this land of freedom.

Much alarmed to see heading in *Nature.* "Flame-resistant Rubberised Hair". Another fashion fad? The answer to alopecia? A puzzle of forensic medicine? The answer was in the quarterly journal of the Natural Rubber Producers' Research Association. The hair goes into upholstery filling. Plus latex and trichlorobromomethane. Well, somebody must care.

Matron's Ball was held this year in the Clothworkers' Hall, Mincing Lane. It was a magnificent occasion and fully justified the move away from Guy's. The Hall was grand and imposing yet warm and friendly and the guests felt freer, no doubt, as the champagne and gossip seemed to sparkle more brightly and more often. Somehow it was a delightful surprise to want to walk back home, even if we had a car.

What with new designs for nurses' uniforms around, and topless dresses in the headlines, one dreads to conceive what may pass. At least the patients on Diplock might be happier, and even everyone else.

GUY'S DIARY

JULY

EXHIBITION.			*Catheterisation.*
13th	M.	1.00	Dr. BAKER. Clinical Lecture. *Syncope.*
14th	T.	1.00	Professor ATKINS. Clinical Lecture. *Appendicitis.*
16th	Th.	1.00	Dr. VAUGHAN. *Crime in Short Pants.*
17th	F.	1.00	Dr. MacLEAN. Clinical Lecture. *Indications for Steroid Therapy.*
20th	M.	1.00	Dr. FLEMINGER. Clinical Lecture.
21st	T.	1.00	Mr. ECKHOFF. Clinical Lecture.
23rd	Th.	1.00	Dr. POTTS. Clinical Lecture. *Hyperbaric Oxygen.*
28th	T.	1.00	Dr. WAYTE. Clinical Lecture.
30th	Th.	1.00	Mr. WASS. Clinical Lecture.
31st	F.	1.00	Dr. KAUNTZE. Clinical Lecture. *Emphysema.*

ADOPTION

by Duncan Leys

Adoptions are as old as recorded history, and presumably as old as man himself, but legalised adoption in England has a history of less than 50 years, and coincided with the influx of refugee children from the continent during the First World War. The word is now restricted to adoption which has been approved by a court of law, in terms of the Adoption Act, by which all the legal rights of parents are transferred from natural to adoptive parents. There are now from 15,000 to 20,000 such adoptions annually. There are an unknown number, possibly as many again, of adoptions not approved in law, when someone undertakes to bring up a child, whether for pay or not, when his own parents are unable to do so. Within a family group this is constantly happening, although not so often in Britain as it does in less industrial societies in Africa and Asia. This kind of "*de facto*" adoption is called "fostering". Children who have been abandoned, or whose families are unable to look after them, and for whom responsibility is accepted by the children's officers of local authorities or by voluntary societies such as Dr. Barnardo's, are often placed in foster homes. Foster parents have no legal rights in the children they foster, and they may be required to give them up at any time.

Almost all adopted children are illegitimate. Very occasionally a married woman wishes her legitimate child to be adopted on the grounds that she cannot provide him with a proper home, but adoption societies are reluctant to accept her, fearing, among other things, that she will be more likely than the mother of an illegitimate child to change her mind and so cancel her consent to the adoption after the child has been placed with a family. In a society in which most children's parents are married it is a handicap, legal, social and emotional, to be illegitimate. An unmarried mother who is not living with her child's father, and with no prospect of doing so, is, as a parent, at a great disadvantage compared with married women. She is very unlikely to have an independent income and she will not get from National Assistance enough to keep herself and her child in tolerable comfort, even if she can find somewhere to live. She may be given a home with her own family, but the child's position and her own will be invidious, and she will probably have to go out to work; if she works, someone else must care for her baby. Frequently she will pay a foster mother or nursery to look after the child while she is working: fostering of this kind is casual, by untrained and usually uninterested people, and there are often several changes of

foster parent. At the worst, illegitimacy introduces a considerable hazard for life and health; at all ages in early childhood, mortality figures are worse for illegitimate children.

Adoption law stipulates that a child must have been continuously in the care of adoptive parents for at least three months from the time it is six weeks old, before it is possible for a court to make the adoption final, and this means that a legal adoption cannot be completed until a child is four-and-a-half months old. The intention behind this rule is to make it possible for the natural parents, and especially the mother, to revoke the decision to part from the child before a court order has been made. It is possible for a court to over-rule a mother's refusal, if there is strong evidence that she has no genuine interest in him or prospect of providing him with a home, or if it is judged that her refusal of consent is frivolous, but courts are very loath to do this. Refusal of consent by mothers after a child has been placed with adoptive parents is quite common, perhaps as common as 5 per cent of placements. This is very bad for adopters, very bad for an older child, and quite bad even for a very young infant, and so it is arguable whether such latitude given to mothers who have consented to have their children placed for adoption is right.

Another reason adduced for the three month pause is to allow time for enquiry to be made by the court as to the circumstances of the adopters and the health of the child. For this purpose the court appoints an investigator, the so-called "guardian-ad-litem", who may be anyone the court directs but is usually one of the children's officers of the local authority and so a trained, and usually experienced, social worker*.

It has been realised for many years that although many very casually arranged adoptions seem to have been quite successful, many have been disastrous, and that arranging an adoption is a professional job. A good professional is an enthusiast but tempers his enthusism with caution, knowing that there are very many uncertainties, claiming only to be able to recognise some of the good or bad circumstances, but at least capable of warning against adoption when circumstances obtain which experience has shown to be almost a guarantee of failure. Nobody can say with confidence what are the criteria of success, but failures declare themselves in the separation of adoptive parents, the abandonment of children, and in the development of behaviour disorders and delinquency in the children themselves.

There is no legal prohibition of what are called "third party" adoptions, i.e. those arranged not by a registered agency but by you or me or anyone else, in spite of the general agreement that such adoptions are risky. The reason why Parliament has not tried to forbid third party adoptions is simple. Namely, that if the adopters

*It is worth noting that 40 years after the passing of the first adoption act there is no corps of adoption officers, no association to represent them, and no training scheme.

could not get a legal order, they would not apply at all: they would do without the legal sanction and become *"de facto"* parents. But there is nothing in law to prevent any of us from bringing up a child unless we are so neglectful or morally disreputable as to arouse the suspicions of our neighbours, or unless we are paid for it, when we must declare ourselves to the children's officer for supervision. To advertise children for adoption or to make money out of adoption is illegal, but there are ways of avoiding the law; it is impossible to say whether there is much trade in adoption in England, but rumour suggests that it is quite common for 1,000 dollars to be paid for a privately arranged adoption in the United States, where it is also illegal.

The remedy for many of these difficulties is to provide a really first class adoption service on a national basis. It can well be administered locally but the present situation in which local, often extremely local, societies are autonomous with variable rules and variable, often very poor practice and resources, should quickly be brought to an end. A step towards this ideal was made by the Adoption Act of 1958, which encouraged local authorities of a certain size to appoint their own adoption committees and officers, and which will tend to create cadres of professional workers.

A good adoption officer who is given enough latitude by her agency will have several interviews with prospective adopters, not only to satisfy herself and her committee as to their suitability as parents, but so that she can give them information and advice which will carry forward right up to, and often for a long time after, the adoption. For becoming an adoptive parent is no easier, and may be much more difficult, than becoming a natural parent. Some adoption agencies in America have formed clubs and discussion groups for adopters, with apparent success.

In the past, social workers have been mainly employed by adoption societies which are financed by a church and their attitude has been decided by this. Churches undertook this work when nobody else thought of it, in the same way as they made mission schools when there were no other schools. Many agencies demand that adoptive parents should be members of a Church, and often of a particular Church, and the law insists that a mother has the right to ask that her child should be brought up by adopters in a particular religious faith. Both these rules are bad, and are, of course, easily circumvented. Local authority agencies will not demand membership of a Church, but some members of committees may wish to mark down people who declare themselves as agnostic. A purely secular agency has just been registered.

Controversy is still active and is likely to remain active so long as facts are so hard to come by, as to whether mothers should be encouraged to decide about adoption before the birth of illegitimate children. The hard fact is that nearly all mothers who attempt to keep their fatherless children are forced eventually to abandon the

attempt, that the child is then no longer attractive to adopters (who want young babies), and will probably be given up to the care of a children's committee, having lost his chance of becoming integrated with a family. And there is no evidence that women who make up their minds early and stick to their decision are in a worse position emotionally than those who delay: there is plenty of evidence that they are worse off in other ways.

Courts are told to advise adopters to inform their children of the fact that they are adopted, but it is never right to make an occasion of this. Children should be brought up "in the knowledge that they are adopted". This may not be easy but is far better than leaving the child in ignorance to discover, under perhaps very adverse circumstances, that his parents have been deceiving him. There is a middle course between leaving him in ignorance and ramming the knowledge down his throat. Adoption is a "fact of life" to be communicated like the facts of birth and death and love and conception, according to the insights and opportunities of parents. It carries with it the knowledge of illegitimacy, which is socially now not very important but does have the implication of abandonment by your mother, the knowledge of which can be made relatively also unimportant by two things, the love of adoptive parents and the refusal by them to denigrate the natural mother and father. Agencies differ widely in policy as to how much information about natural parents should be given to adopters; often very little is available, and a little knowledge can be very misleading. Genetics hardly enter the picture: formerly a great deal of nonsense was talked and even acted upon, without the excuse of necessary ignorance. This carries over into the practice of so-called "matching". The theory is that professional (or well-to-do) adopters should be given the children of mothers coming from a similar background in the expectation that such children will make a better "match" in terms of intelligence than children of working-class mothers. The assumptions behind this idea are large and vague: it is often implied that there will also be better matching in terms of character, as to the meaning of which there is usually a handsome state of confusion. The medical practitioner of to-day is presumably too well-informed for such an argument to carry much weight, especially since accurate information about the father is likely to be minimal, and genetic history of both parents entirely lacking. Any information given to adopters must be anonymous, for it is an essential feature of arranged adoptions that mothers should not be able to trace adoptive parents and *vice versa.* Contact may be very embarrassing to the new parents and confusing to the child, and this is another reason why casual or third party adoptions are sometimes failures, since they are likely to be made between people living in the same town.

All births are registered; when a child is adopted he gets a new birth certificate, with his adopters' surname, and often is given by them a new first name also. He is now completely a member of the new family. Some adopted children have a powerful urge to trace

their own mothers, and one may perhaps suspect, when this is so, that their integration into the adopting family has not been wholly successful. It is possible for an adopted person, as an adult, to inspect his original birth certificate, but he must apply to a court of law for permission to do so, for there is no way of finding it except through the index of correspondence which is not, like other indices of birth registration, open to inspection at Somerset House.

From 1 to 2 per cent of live born children in England have some major defect of development; the risk of producing such a child is taken by all parents, and sometimes the risk is known to be very much greater. Adoptive parents, who need not commit themselves to an adoption until the child is several months old and who cannot legally do so until he is at least 20 weeks old, avoid this risk almost entirely, since nearly all serious abnormalities can be diagnosed before that time, and many very much earlier. But the diagnosis of some defects does require skilled and leisured examination by a paediatrician and perhaps the most important of these is mental subnormality without obvious physical defect. Ideally, every child would be examined in this way, and in the presence of adoptive parents, when it is three or four months old.

Some adoption societies will not place a child with adopters until such things as hernia have been surgically treated, and meanwhile the child is kept in a residential nursery. This is altogether bad practice, since the new parents are robbed of the good experience of seeing the child through his operation, and the child is subjected to substitute parents and a break in care, besides running a quite unnecessary risk of infection ; the adopters also receive a false impression that the child is given to them with a sort of guarantee of perfection. Large societies which undertake the care of deprived children (i.e. children without families or abandoned by their families), such as the Children's Society or Dr. Barnardo's, are also adoption agencies, and many of the city and county councils have now formed their own: these are all much better placed than an individual or a small society to see an adoption through, with all the risks involved of making a mistake.

An adoption may be legalised in a Magistrates' Court, in a County Court or in the High Court. There is less publicity in the County Court, and some adopters will prefer this: I know of no reasons except snobbish ones for prefering the High Court. Courts have no right to refuse an adoption order unless there are genuine doubts about the suitability of adopters, or unless parental consent is not given. The unmarried father of an illegitimate child has the right to be consulted, if paternity has been acknowledged. The mother of an illegitimate child may adopt him in order to give him a social status which, as an adopted child, is thought to be more satisfactory, and this is the only exception to the rule that nobody may adopt unless they are older than 21, and indeed over 25 if they cannot claim to be related to the

child. An unmarried man may not adopt a girl. Such rules are established by the Adoption Act, but an adoption agency will make its own rules also as to whom it will or will not accept as prospective adopters: one of the commonest rules limits the age of adopters to perhaps 40 or 45, on the grounds that older people would be too old to make satisfactory parents when their children, adopted as infants, have become adolescent. Single women who are not relatives will occasionally be accepted by the courts as adopters if, for example, they have had the care of an older child for some years previously; but when there are so many married people anxious to adopt, it is very unlikely that an adoption society will place a baby with an unmarried woman.

Before making an adoption order the court must be satisfied that a child has been medically examined and that the adoptive parents are healthy. For practical purposes, the doctor should make his own meticulous examination and call attention to any anomalies. The doctor must never allow himself to be put in the position of saying that a child is "suitable for adoption"; he is not recommending goods to a purchaser, and adoptive parents have on occasion been known to accept even grossly handicapped children. It is for the doctor to give accurate information on the child's physical state and capacities, not to advise for or against acceptance.

It is important for the agency and the court to know that adoptive parents are healthy, but still more important to know that the marriage is stable, that the motives for adoption are good and that the parents have "good" personalities. But it is very difficult to establish this. Better to have parent guidance before rather than after adoption!

There is nothing to prevent the adoption of two or more children by one family, and most agencies encourage it, but time is always against the adopters, since it may have taken them 10 years or more after marriage to recognise sterility, to make efforts to improve fertility, to decide to adopt, and to achieve the adoption of a first child. Adoption of a child into a family which already has its own natural child or children is a more difficult proposition: experience suggests that it will be successful if the adopted child is much the youngest, so that he is regarded as a baby by the others. The birth of a natural child after the adoption of another is reckoned to constitute an emotional hazard for the first, and agencies are therefore anxious to have reliable evidence about sterility; with present knowledge and techniques, sterility clinics can only establish a main reason for the failure to have children in about half the couples who consult them.

The number of adopted children who attend child guidance clinics is larger than would be expected from their numbers in the population, but this may be because adoptive parents are on the whole more anxious and more conscientious and better informed than others.

There is no reliable evidence that adoptive children are more likely, by the mere fact of adoption, to be insecure. In the past it has been not uncommon for adopters whose children developed behaviour troubles or other neurotic disturbance, to regard the symptoms as evidence of "bad inheritance"; one hopes that this is now rare and will become unknown as adoption practice improves and wrong ideas about genetics are eliminated.

The practice of adoption is rapidly changing and doctors should be able to play a useful part in its development. An organisation known as the Standing Conference of Adoption Societies has for many years provided a forum for discussion of adoption problems, and it has recently formed a medical committee. But one hopes that there will be before long an active professional organisation such as exists for child care officers, which will collect information and disseminate it, organise conferences and perhaps sponsor research. Some very useful pioneer work has been done which aims at finding reliable criteria for successful *fostering*. This kind of study is much more difficult in adoption practice, but not impossible, and doctors are well-equipped to take part in it.

Another reason for making it impossible for an adoption order to be made by a court until the infant is over four months is to allow an examination of the child to be made at a time when it ought to be possible to diagnose any grave developmental defect and to give the adopters the opportunity of rejecting him on this account.

These three factors are separable—the mother's opportunity to withhold consent, which is debatable; the opportunity for the court to investigate the adopters, which may be unnecessary if the work has already been done by an adoption officer acting for an agency: and, lastly, the opportunity for the adopters to reject a handicapped child, which is also debatable, but in quite different terms. The law at present is a compromise, sometimes working out to the detriment of the child and the adopters, with doubtful benefit to the mother.

NOTICE

"The Aetiology of War"

It is proposed to hold a Conference on Factors in the Aetiology of War (fourth in the series) from Friday 10th to Sunday, 12th July, 1964, at St. Hugh's College, Oxford. The subjects treated will include: Religion as a cause of war, Racial conflict, Crimes of violence, Armament and disarmament. Further particulars may be obtained from the Conference Secretary, Mrs. Barbara Edwards, " Downside", Park Prewett, Basingstoke, Hants.

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Some Wayside Objects

H. St.H. Vertue

Are there fathers still who found a library for their sons? From mine there came to me a nucleolus of admirably chosen books, well bound, too; and among them was *The Open Road,* compiled by E. V. Lucas. All you had to do at that time was to walk a little way or take a little train or merely open the gate, and there wound away or stretched ahead the open road, with unspoilt Nature before you and any amount of interest in store. There had been Mr. Pickwick it is true, who had preferred a stage coach to Shanks's pony; yet the spirit was in him, and few things delighted him more than a stone that he found by the road inscribed BILST UM PSHI S.M. ARK. How it stirred the spirit of inquiry in him! Journeying down the medical highway I have come across one or two similar objects and have thought of presenting them to the men of Guy's, as though to the Pickwick Club, for their consideration.

The Psychopathic Personality

Heralded by distant din, into the consulting room marched the patient. Having been greeted, he was invited to sit down and give an account of his troubles. "*Yiew* got it all *thayer*!" he bawled, pointing to some papers. Requested to offer his own version, he burst into a tirade upon the Ministry of Health, the Ministry of Pensions, sundry Boards and the Army, in stentorian tones, interjecting senseless ejaculations—"See here, Sonny Boy!" and "*Yiew'll* get yer fifty bob!" At length, having blown himself out, he consented to go into the next room for a medical examination. In a rather dazed way he began slowly to undo his trousers, then spied a nurse. "What's *she* doin' *ee-yer*?" He had begun to bawl again in a voice thick with passion. Then the mood changed abruptly. In a leisurely way he did up his buttons and coming close remarked in confidential tones, "I' tell yer how it will be. *You'll* have yer two thousand and the National Assistance will look after *me.*" Having so arranged all to his satisfaction he sauntered out. I was touched by his magnanimity in raising my fee so substantially.

A ready-made diagnosis had accompanied this man, the "Psychopathic Personality"; that is to say that he was "suffering in soul". What sort of soul? The winged Psyche? Keats' "latest born and loveliest vision far of all Olympus' faded hierarchy"? No! The beautiful maiden that dwells within, who flies to Heaven when our days on earth are done? No! Was she Poe's "sweet sister", who sorrowfully trailed her wings in the dust? Not she! (But other souls that had to associate with the patient's would have done that.) Then was it a ghost, a breath, a cool breeze? Again no! Aristotle's

soul then? Plato's? Epicurus'? None of those! In fact in all the catalogues of souls there is not one that corresponded. We have to admit then that our respected colleagues, the psychiatrists, who invented the term "psychopathic", do not deal with soul at all but with mind. Psyche they disown, except in name.

I am not a psychiatrist—

> Be sure yourself and your own reach to know,
> How far your genius, taste and learning go.

But I know a trifle about words. Would not the good psychiatrist use good words? Would he not make away with his "psychosis, psycho-motor, psycho-therapy, etc." and substitute terms that have relationship with mind instead of soul? Lo! the poor Indian, still with his backache but without his soul-begetting overlay (psychogenic)! What draught of cool, clear water that would be! Is psychiatry a science? If so, surely its terminology should not have a false foundation. There are psychiatrists who lay all upon behaviour and not upon mind. Appropriate terms there, too, would be an advantage, including something better than "behavioural". But the patriarchal name "psychiatrist", though not euphonious, is too much esteemed to be supplanted. Now it is true that illness may come upon a man because of his faults and vices; but Psyche having ascended, where is your Psychopathic Personality? I answer with these memorable and tremendous words, "I don't believe there's no sich a person!"

Tuberose Sclerosis

Romantic indeed is the tuberose! "So saying he was about to take his leave, when his adored Gretchen came tottering down the marble stairs, still pale and trembling from the effects of last night's excitement, a simple tuberose in the ample folds of her raven hair, longing to lay her aching head against the bosom of him whom she loved more dearly than life itself, etc." How glamorose was her tuberose! How amorose was he! The tuberose is a splendid, half-hardy, bulbous plant, with white blossoms richly scented, sometimes double. Plant the bulbs in 5in. or 6in. pots in a mixture of loam, leaf-mould, silver sand and decayed manure. Plunge in bottom heat and withhold water at first. (There seems to be a hint of drastic treatment here.) But what is the connexion between this fair flower and a queer disease that exhibits lumps and blotches and imperfections of the understanding? Obscurity vanishes when one recollects that even Guy's men have been known to spell stuporous as "stuporose". After all, then, the tuberose may not be venomose.

Auto-immune Disease

There came in one day a woman of what we call an "early middle age", who had had an operation upon her thyroid gland. She was endowed with a pleasant disposition and the usual amount of intelligence but not with any scientific curiosity. There had been a goitre, treated at the start with iodine (*sc.* radio-active), but without success. Next an operation had been performed upon the gland; and now she was an out-patient under the surgeon's supervision, taking

tablets daily; but of their nature she knew nothing. That operation, I found, had been of a peculiar kind, for a large part of the right lobe had been left behind; and this surviving sample was of a wondrous roundness and smoothness. I thought at once of the little grandchild Wilhelmine and "came to ask what I had found that was so large and smooth and round". But *hard* (I noted) it was not, nor woody. Regarding the rest of her I should say that her condition was good and that there was not a trace of exophthalmic goitre. This strange story I interpret in the following way. At first there had been evidence of excessive secretion by the thyroid as well as a goitrous enlargement; but iodine had proved ineffectual. Accordingly the surgeon had decided to operate; but what the knife revealed was not the meaty gland of Graves' disease but the pale fragility of Hashimoto's. Therefore much of the gland was left and to prevent myxœdema the patient was consigned to a regular dose of thyroid gland (or substitute) thereafter. Hashimoto's disease is regarded as the typical auto-immune disease.

Auto-immunity figured largely in a recent number of the Reports (dedicated to Payling Wright); and Hashimoto's disease was duly described in the valuable article of Dr. O'Gorman. Allow me to remind you how he illustrated an illness of this curious kind by the behaviour of an animal towards grafts. For a few days the graft survives; then it becomes infiltrated with lymphocytes, succumbs and is sloughed off. In Hashimoto's disease in man (usually in the female) the gland is considerably enlarged and may for a time excrete excessively. It is widely infiltrated with lymphocytes and the acini are largely destroyed. There is also a high level of γ-globulin in the blood. Sloughing, however, does not take place. In this disease the thyroid gland has become as it were toxic to its owner, who seems to try to deal with it as if it were an introduced body, to which his own tissues are hostile. We may say of the disease truly that it is self-produced and also self-producing.

I have a hearty admiration for those who can extend and enlighten such an abstruse subject as "auto-immunity"; and yet when that word had been coined someone had blundered; for what does "immune" mean? Learn pleasurably from one of those women whom Horace has invested with charms immortal, his rustic friend Phidyle. With her palms piously upturned, the simple girl honours dutifully gods of farm and field and homestead, offering meal and the sprinkle of salt that crackles in the flame. No costly sacrifices are required, because the pure hand that touches the altar is "immune". (*Immunis aram si tetigit manus, etc.*) And the hand of Phidyle is "immune" because she is exempt from the obligations that guilt requires. So is one immune who is exempt from taxation or from military service. This word has been adopted into English. We say, for instance, that a person is immune from harm or that, having had measles once, he is immune from measles thereafter. Please note that it is correct to say "immune from" but not "immune to", as for instance that the lady of the house is immune *from* work, when all is done by the servants. (In

the original Latin the genitive is used—*domina immunis operae.*) Now in course of time it was discovered that what brings about immunity from (say) measles is the presence in the patient of certain bodies, γ-globulins, which once having had the disease he continues to manufacture for himself. But a blunder was made when these bodies were labelled "immune bodies". Of course it is not the bodies that are immune: it is the *patient.* And so he who reads finds the subject more awkward than it need be, for as he goes along he has to sort out in mind the confusion. Literally auto-immune diseases would be diseases that are exempt from themselves. I hear a grand voice from the past, that of A. J. Beddard. "My dear boy," he would have said, "there is no such disease."

When the doctor has made the diagnosis, he is usually required to provide the remedy. Fortunately there is one, for the concept of auto-immune disease would be well represented by the simple word *autogonous* (not "autogenous"), meaning both "self-producing" and "self-produced", used in both active and passive senses. It might be objected that Nonnus, from it is taken, is late, 5th century A.D.; but Nonnus was careful in his choice of words, a well-read man. To set right the misleading term "immune bodies" all that is required is the adoption of the Definitive Genitive, as found in *lux solis,* light of the sun. *Globulins of Immunity* would be both accurate and sonorous.

Our age may take credit for philanthropy; but its oustanding achievement is a success in science unparalleled since the days of the Atomists and Tresocratics. We have only now to persuade a few scientists to abandon a belief that Science is an adolescent and is bound to assert herself, and we shall see her take her place as the tenth Muse. Please then to regard her so, woman-like looking over her shoulder to admire the hang of her new garments—grammar, vocabulary and literary style. "Then on to Olympus, her endless abode!"

REPRINTS

Reprints of the following articles recently published in the *Gazette* are now available:—

A Scientific Background to Clinical Medicine:—

14. *Isoenzymes,* by A. N. Davison.
15. *The Pathogenesis of Cancer,* by J. O. Laws.
16. *Biochemistry and Schizophrenia,* by N. A. Gregson.
17. *The Chemistry of Connective Tissue,* by Margaret Whichelow.
18. *The pH of the Blood,* by W. L. G. Gent and J. C. Trounce.
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A Concert

Guy's Hospital Music Club

Anyone who spurned the counter-attraction of a fine, sunny evening in order to attend the concert given by Guy's Hospital Music Club was rewarded by a varied and entertaining programme. An excuse for the occasion, if one was needed, was provided by the opportunity to mark the 50 years that have passed since William Denis Browne, a gifted young composer who was killed in the Dardenelles, conducted the Music Club Chorus and first introduced Vaughan Williams' folk-songs to a London audience.

A pair of recorders, ably supported by 'cello and continuo, executed the five characteristic movements of Telemann's trio sonata in C with great polish and expressiveness. We were then, via "The Bird Fancier's Delight", initiated into the art of "recording" birds—i.e., of teaching canaries not how but what to sing. The chorus, from which Robert Sells drew an animated performance, showed how well Vaughan Williams' rich, perhaps a trifle lush, folk-song settings had survived their half-century. Two of Denis Browne's songs, elegantly sung by Richard Frewer in a rather light but pleasing baritone, showed his to have been a genuine talent: earnest and imaginative, but of course very much *de l'epoque,* as a song by Quilter which was more professional but not necessarily deeper in feeling reminded us. A rousing finale to the concert was provided by Constant Lambert's "Trois pièces" . . . lots of *glissandi* but very few slips.

THE PROGRAMME

Trio sonata in C major	*Telemann*
The Bird Fancier's Delight	*Anon.*
Two-part Invention	*Tippett*
Four Folk-Songs	*Vaughan Williams*
Pavane, Galliard, Semper Dowland, Semper Dolens	*Dowland*
Trio Sonata No. 1 in F	*Loeillet*
Songs for baritone:	
Weep with me	*William Denis Browne*
The Snowdrop	*William Denis Browne*
O Mistress Mine	*Quilter*
O Waly Waly	*Britten*
Ich Grolle Nicht	*Schumann*
Trois pièces negres pour les touches blancs	*Constant Lambert*

THE ARTISTS

Michael Lindop, Philip Mansley, *recorders;* Diane Whitfield, *cello;* Christopher Penny, *piano;* Roger Boston, Rosemary Baker, *violins;* Thomas Sherwood and Robert Sells, *piano duo;* members of Guy's Hospital Music Club Chorus, conducted by Robert Sells.

CORRESPONDENCE

Grass

SIR, When the restoration of Guy's House is completed, the front courtyard will not be grassed as you have suggested in your editorial, but the two smaller quadrangles within Thomas Guy's original building will be turfed. In considering the Hospital's plans for the future, the London County Council has asked us to provide a specified number of car parking spaces, and the front courtyard is unfortunately one of the areas which has to be used. It is hoped that in later stages of the Hospital's development there may be other ways of overcoming the problem and a grassy front courtyard might then be more likely.

Yours, etc.,

A. H. BURFOOT,
Clerk to the Governors.

Miss E. M. Earl

SIR, Miss E. M. Earl joined the staff of the hospital in 1932 and spent the greater part of her time in the Nuffield House office. She retired on 9th April and her many friends from all sections of the staff of the hospital contributed to a leaving present which Miss Earl wished to receive in money form. A cheque for £193 7s. 6d. was recently sent to her and in acknowledging this Miss Earl has written as follows:—

> I have just received your letter and the Enclosure—the cheque made up of contributions from my friends at Guy's. I feel quite overwhelmed and it is impossible for me to express my profound thanks to all adequately, but please tell them all how very very grateful I am and that in due course, when I move into my cottage, it will give me tremendous pleasure to choose something for it in memory of their great kindness and their thought for me.
>
> The etching, with all their signatures around it, will have a place of honour in my home, too, and I shall value it greatly. Many people down here will be most interested in it for Mr. Trethowan, that great Guy's man, was born in the village in which I shall live, loved it always and, by his wish, his grave is in the churchyard of Rame—a tiny Saxon church on a hill over the village.
>
> Thank you so much for your good wishes. I am very busy and interested and now have tenant farmers, River Board inspectors, Admiralty officials and submarine commanders in my office instead of Consultants, Sisters, patients and relatives—and deal with farmhouses and buildings, fields, orchards, wayleaves, shippons and piggeries instead of my Nuffield House familiars—waiting lists and afflictions, or births and deaths!
>
> Again, my most grateful thanks to all and my greetings. They will always be much in my thoughts whenever " I summon up remembrance of things past".—Yours sincerely, MARGARET EARL.

Yours, etc.,

A. H. BURFOOT,
Clerk to the Governors.

Counting House,
Guy's Hospital,
London, S.E.1.

Shakespeare, Keats, and Arnold

SIR, It was a pleasure to read G. L. Davies' tribute to Matthew Arnold, the power of whose sonnet "Shakespeare" none will deny. I have always felt that we of Guy's owe Arnold a special debt of gratitude, for it was he who—in answer to Keats' " I think I shall be among the English Poets after my death"—wrote: "He is, he is with, Shakespeare". May I commend, for pleasant reading, Arnold's perceptive article on Keats in his Essays in Criticism, 1880.

Where Arnold led many have followed; and, as I write, Richard Church—himself a poet—is judging the respective merits of 650 sonnets in Shakespearean

form, submitted by competitors for the Poetry Society's prize for the best sonnet to mark the Quatercentenary. I, for one, look forward to next October when one will be able to compare the winning sonnet of 1964 with Matthew Arnold's masterpiece of 1844.

Yours, etc.,

E. A. PENNY.

Newtown House,
Beaminster, Dorset.

Crime and Punishment

SIR, Your commentary upon the report of the Labour Party study group on Crime which appears in Passim of the *Gazette* of 27th June, is interesting and generally acceptable.

I would suggest, however, that the most remarkable section of the report is that which urges that the age of criminal responsibility should be raised to that of the school leaving age—at present 15, shortly to be raised to 16. This means that an adolescent of 15 (or 16) would be held by law to be incapable of committing any sort of crime (*doli incapax*) on the grounds that he is not capable of knowing the difference between right and wrong. In other words, these adolescents would be given a licence to commit every sort of crime—great and small, against the person and against property—secure in the knowledge that they would be protected by law from any unpleasant consequences.

I do not know how the Psychiatrists view this startling proposition, but I doubt whether it will commend itself to us ordinary people.

Yours, etc.,

H. A. H. HARRIS,
(*F.R.C.S., Barrister-at-Law*).

Southborough House,
Chelmsford.

REVIEW

A SYNOPSIS OF SURGICAL PATHOLOGY.

by Wilfred Kark, Stonebridge Press, 1964. Pp. 432. *Price* 45*s*.

Mr. Kark teaches clinical surgery as well as surgical pathology, and he is a surgeon by training. Thus it is not surprising to find that he presents Pathology from a strictly surgical approach. In the thirty-seven chapters he briefly deals with the subject under headings like " the skin", " the liver", "the pancreas " and " the neck". Although from the list of chapter headings there appears to be a full coverage of the subject, in fact the chapters are very short and some topics are briefly described and some common conditions are even omitted. There are several chapters on subjects of special surgical interest which are well presented: " Hernia", " Intestinal obstruction", and " The appendix " are examples; and it is in these that the book is at its best.

To the Pathologist this book will be over-simplified and incomplete. The chapters on topics of less surgical significance, for example " The Lymphatic system", the reticuloses, and surprisingly "The heart", are poorly covered, and a Textbook of Pathology would present them more clearly for all types of student.

The author's rigorous use of headings when discussing each condition is a good discipline for an examination candidate who would do well to copy this form of presentation. Being a " synopsis", the book suffers from being too brief to the point of omission with some subjects; and it is dull to read, although its small pages and short chapters can be covered quickly. The use of more diagrams would certainly help to clarify some of the short descriptions and could prove of use to an examinee.

The book would be useful to read quickly, just before Final MB Surgery, but I doubt that it is complete enough for higher examinations. The subject can be covered by using general textbooks in Pathology and Surgery, which makes forty-five shillings for this tenuous anastomosis a little dear.

JONATHAN ROGERS.

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SPORT

CRICKET

The alteration to the rules of the Junior Cup Competition has had the desired effect, in fact to such an extent that there is still argument as to who won the final against the London Hospital. The finish to this game was quite unbelievable —one which one often reads about but rarely witnesses. The London needed five runs to win from the last four overs, and a series of diabolical mistakes by the fielders resulted in the opposition needing two runs to win from the last ball with their last pair together. The ball was struck firmly past Biggs' left hand at cover and the batsman was run out attempting the winning run. This should be a victory for Guy's (98—8), as with the scores level they lost fewer wickets, but the London are disputing this as no hard and fast rules have been laid down in the Minutes of the last United Hospitals A.G.M. to cater for such a situation.

The 1st XI sailed comfortably through to the final when they beat U.C.H. by 157 runs, and have the distinguished record of dismissing all other hospitals for less than a 100 runs. U.C.H. were perhaps a little unlucky as heavy drizzle intervened with Guy's at 72 for 2 at lunch-time. This took all life out of the wicket and on the resumption the ball proved difficult to hold. Hambleton and Powell-Jackson then took charge of the situation and the former went on to score his second unbeaten century of the Competition and take his aggregate for the season to 732. This total is a particularly fine effort considering the number of games that have been cancelled owing to rain.

After a somewhat tardy start at Mote Park, Guy's managed to struggle to 139 on what seemed a perfect batting wicket with Crafts providing the backbone of the innings with a fine half-century. This seemed far too small a total as the outfield was extremely fast. However, the Mote proceeded to get completely bogged down, and at 84 for 7 the game seemed to be won. The Mote then scored 11 runs in a period of nearly 40 minutes and proceeded to play themselves back into the game. Guy's dropped Levick at mid-wicket at a crucial point in the game and eventually went under by three wickets after an exciting struggle.

A depleted Guy's side without their opening bowling attack comfortably beat Queen's Belfast by 6 wickets, the winning hit being made in the last over, and in the game against Streatham on the following Sunday the result was a rather uninspiring draw.

Reports and Results

CRICKET

GUY'S v. U.C.H.

Semi-Final Inter-Hospitals Cup

At Hendon Tuesday, June 23rd, 1964

Result: won by 157 runs

Guy's were asked to bat on a wicket which was quite green and was obviously going to give the seam bowlers some help. Fortunately, U.C.H. did not have the opening attack to make full use of the conditions, and Huins and Silk were at ease until at 30 the latter drove into the hands of extra-cover. With the score at 52 the U.C.H. captain, Watermeyer, was brought into the attack, and in his first over to Hambleton turned several deliveries very sharply.

With Hambleton looking somewhat bewildered by this change, the remainder of the Guy's team kept an ominous silence when Huins was bowled by the same bowler trying to strike across the line.

Fortunately, for Guy's, at the lunch interval, heavy drizzle set in to make conditions very wet. Play was resumed half-an-hour late after the interval, and with no play at Lords, it looked as though yet another game was going to be abandoned. However, this was not to be; Hambleton found his timing again, and adequately supported by Powell-Jackson, he strode on to his third century of the season—which included seventeen boundaries.

With the clouds threatening rain the whole time, the declaration proved a difficult one, and U.C.H. were left 222 to win in three-and-a-half hours. The U.C.H. openers started confidently, but fortunately did not stay for long.

The wet conditions brought a quick change in the bowling attack and Davoodbhoy replaced Knott to leave Walter to bowl down the hill. This immediately proved effective and both openers were dismissed before the tea interval.

Davoodbhoy's quicker ball and Crafts' leg-breaks eventually proved too much for U.C.H., and Guy's dismissed yet another side in the Cup for less than a century.

Guy's

D. Silk, ct Gage, b Imms	19
T. Huins, b Watermeyer	21
G. Hambleton, not out	112
J. Powell-Jackson, not out	51

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Total 221-2 dec.

Did not bat: M. J. Appleby, J. Crafts, S. Davoodbhoy, M. Jones, E. Price, N. Knott (Capt.), M. Walter.

U.C.H., 84. (Knott, 10-5-17-1; Walter, 8-3-20-2; Davoodbhoy, 15-4-30-4; Appleby, 3-0-11-0; Crafts, 5-4-1-3.)

GUY'S v. THE MOTE

At Mote Park. Saturday, June 27th, 1964

Result: lost by 3 wickets

Guy's fortunately won the toss and were able to bat first: the start to this game was somewhat shambolic as three members of the Guy's team were unavoidably delayed and arrived a little late at the ground. Price and Appleby were dismissed very early on, and at 8 for 2 wickets, it was necessary for Guy's to steady down and build the type of total necessary to defeat such a good side as The Mote. Crafts formed the backbone of the Guy's innings with a fine 51, scored in 100 minutes, and with Norman, 23, now retrieved the situation somewhat by taking the score to 48. Silk's wicket was than lost quickly, but Reekie hit hard and well to score 21 in a brief 12 minutes at the wicket, including a six off some tee or other, acclaimed as the longest hit at Mote Park this season. Subsequently Guy's were struggling again, eventually being all out for 139, which by all accounts was insufficient runs on the wicket as it was, and against strong opposition.

The Mote did not find it easy to score against Guy's opening attack, Knott and Walter bowled well, and were backed by keen fielding. However, there was no hurry, Guy's first success came at 27, when Crafts got the wicket of Ellis, and then Gunter and Bristow took the score over 50 and The Mote seemed well on the way to their target. However, Walter had Bristow caught at the wicket, and immediately afterwards Gunter was leg before to Davoodbhoy, who had commenced a long spell. Davoodbhoy duly obtained two more quick wickets, his analysis then being 5-1-9-3, and Walter produced a gem to bowl the opposing captain, Pocock, who threatened to hold Guy's up. Suddenly The Mote were struggling at 67—6. The full resources of their side had not yet been revealed, however, and Levick, first of all with Coomber, and then with Foster, began on the slow road to recovery. Coomber rivalled Jones for the longest 0 in the match, but in the meantime Levick scored 17, and then with Foster saw The Mote to their target, Levick being not out 52 at the end of the match. This was a fine day's cricket played in delightful surroundings, the English weather for once being in keeping.

MIKE JONES

Guy's, 139. (J. Crafts, 51.)
The Mote, 143-7. (Levick, 52.) (N. Knott, 9-2-22-1; M. Walter, 16-6-30-2; M. Appleby, 6-1-32-0; J. Crafts, 5-1-18-1; S. Davoodbhoy, 16-5-26-3.)

GUY'S v. QUEEN'S UNIVERSITY, BELFAST

At H.O.P. Wednesday, July 1st, 1964

Result: won by 6 wickets

Queen's, Belfast, visiting Guy's on their annual tour, won the toss and elected to bat on a fine sunny afternoon. Guy's obtained a quick wicket; Queen's then were tied down by tidy, slow bowling, and by their left-handed opener, Ridge, who saw fit to spend 93 minutes over scoring 28 runs. They were thus very much behind the clock by 4 p.m., and but for a hard-hitting innings of 44 by their captain, Houston, would have been in real trouble. They were not the strong batting side of the year before and eventually they were all out for 135, the innings having lasted all of 2½ hours. The chief bowlers were Crafts and Davoodbhoy, the former finishing with 5 for 55 and the latter with 2 for 23 off 13 overs.

Despite the early loss of Price, Guy's scored quickly, with Silk batting with great confidence and aplomb, although he got into difficulties against Austen, being painfully struck several times above the pads. The real winning partnership was between Crafts, 47, and Griffiths, who put on 74 in 58 minutes, the former being out, three short of a fine half-century, only four minutes before stumps were drawn, and with seven runs wanted. Reekie struck the remaining runs required to win the game; Griffiths being not out 28 at the end. Guy's were therefore victorious by six wickets, the finish being nevertheless exciting as the winning run was scored off the first ball of the last over.

MIKE JONES

Queen's, Belfast, 135. (J. Crafts, 5-55.)
Guy's, 137-4. (J. Crafts, 47.)

GUY'S v. STREATHAM

At H.O.P. Sunday, July 5th, 1964

Result: match drawn

Streatham won the toss, and batted on a hard wicket. Knott and Hambleton found a little life in the pitch, but could only force one early wicket when the score was five. Thereafter things went the batsmen's way, and bowling changes did not produce wickets. Nevertheless, the scoring rate was never above a run a minute until the last half hour of Streatham's innings, when Brown, who finished 85 not out, put "the pressure" on. Numerous shots fell between the field, and many excellent short singles were taken. Guy's did well to contain Streatham to 172 for 4 declared in 2½ hours, on what was a good batting wicket.

The Guy's innings progressed well. Huins and Appleby put on 55 for the first wicket. Huins scored 32, Appleby, 37, Hambleton, 36, and Biggs a quick 14. With 35 minutes to go, and 50 or so runs required, Hambleton was given out l.b.w. Biggs put 14 on in five minutes, leaving Crafts and Jones the task of 40 runs in 30 minutes. The return of the opening bowlers set the seal. Jones scored only five in the next half hour, while Crafts managed the remainder, giving 20 runs in the last half hour.

GARRY HAMBLETON

Guy's, 155-4.
Streatham, 172-4 dec.

RIFLE CLUB

Armitage

In the Armitage, an Inter-Hospital event, Guy's filled 2nd place in a field of four. But for some dubious team shifting by Westminster Hospital, Guy's might have taken the trophy. M. Thompson just counted out D. Glynn to take the Individual Award.

Scores:

	'200'	'500'	'600'	Total
M. Thompson ..	32	32	32	96
D. Glynn ..	32	33	31	96
I. Gordon ..	29	31	29	89
R. Illing ..	30	30	28	88

Guy's Hospital	369 ex 400
Westminster Hospital	371
St. Thomas's Hospital	361
London Hospital	341

HOSPITAL INFORMATION

GUY'S HOSPITAL, S.E.1.

The following **Dental House Surgeon** appointments have been made (subject to confirmation by the House Committee) for the period July 1st, 1964, to January 14th, 1965:—

Resident
Mr. P. J. Griffiths
Mr. G. C. D. Ross
General Duties
Mr. R. W. T. Myall
Mr. C. R. T. Lachlan
Mr. R. G. D. M. Burr
Mr. M. J. Burke
Mr. G. G. Ashby
Miss A. E. Pretty
Mr. C. D. C. Tomlins
Children
Mr. P. G. Sullivan
Mrs. V. N. Warren
Prosthetics
Mr. M. S. W. Tyne

The following **Assistant Dental House Surgeon** appointments have been made (subject to confirmation by the House Committee) for the period July 1st to September 30th, 1964:—

General Duties
Mr. N. J. Knott
Miss S. V. Tate
Mr. P. R. Dodd
Mr. T. R. C. Cheesman
Miss M. E. Pyne
Children's Department
Mr. D. E. Cooper
Mr. J. H. Whitworth
Preventive Dentistry
Mr. P. G. McAndrew
Mr. C. P. Hone

J. B. BLAIKLEY,
Superintendent.

APPOINTMENTS VACANT

GUY'S HOSPITAL AND THE SOUTH EAST METROPOLITAN REGIONAL HOSPITAL BOARD

Applications are invited for the post of **middle grade Registrar in Anaesthetics** to the Board of Governors of Guy's Hospital and the South East Metropolitan Regional Hospital Board. The appointment will be made jointly by the bodies concerned and will be for a period of two years, the first to be spent in the Brighton and Lewes Group and the second at Guy's Hospital.

Application forms are obtainable from, and should be returned to, the Superintendent, Guy's Hospital, London Bridge, S.E.1, not later than **24th July, 1964.**

GUY'S HOSPITAL, S.E.1.

Applications are invited for the post of **Senior Registrar in E.N.T. Surgery,** with appointment from 1st October, 1964. Application forms are obtainable from, and should be returned to, the Superintendent, Guy's Hospital, London Bridge, S.E.1, not later than **24th July, 1964.**

GUY'S HOSPITAL, S.E.1.

Applications are invited for the post of **Senior Registrar in the Radiotherapy Department,** with appointment from 1st October, 1964. Application forms are obtainable from, and should be returned to, the Superintendent, Guy's Hospital, London Bridge, S.E.1, not later than **24th July, 1964.**

GUY'S HOSPITAL, S.E.1.

Applications are invited for the post of **Senior Registrar in Child Psychiatry,** with appointment from 1st October, 1964. Application forms are available from, and should be returned to, the Superintendent, Guy's Hospital, London Bridge, S.E.1, not later than **24th July, 1964.**

NEW CROSS HOSPITAL, S.E.14.

Senior House Officer required for the Medical Dept. at New Cross Hospital, Avonley Road, S.E.14, from 1st September, 1964. Appointment for period of six months, renewable by mutual agreement. Applications, together with names of two referees, to Hospital Secretary, by **18th July, 1964.**

GUY'S-MAUDSLEY NEUROSURGICAL UNIT

Applications are invited for the resident post of **Senior House Officer,** for the six months commencing 1st September, 1964 The Unit, which is housed in the Maudsley Hospital, serves Guy's Hospital and the Bethlem Royal Hospital and the Maudsley Hospital. Applications should be made by **25th July, 1964,** to L. H. W. Paine, House Governor and Secretary, Maudsley Hospital, Denmark Hill, S.E.5.

HOUSE APPOINTMENTS

Applications are invited for the following House Appointments at Guy's Hospital, due to begin on September 1st, 1964, applications giving choice of post and choice of hospital, in order of preference, to be lodged with the Superintendent not later than **July 24th, 1964.**

Assistant House Surgeons
Pre-registration 4
The appointment will be for six months, the first three to be spent as A.H.S. During the second three months of the appointment candidates will move either to the post of Casualty Officer (Surgical) or will remain as A.H.S.
These vacancies will normally be open to pre-registration candidates applying for their first appointment and not to candidates seeking their second six months appointment.

Assistant House Physicians
Pre-registration 5
The appointment will be for six months, the first three to be spent as A.H.P. During the second three months of the appointment candidates will move either to the post of Casualty Officer (Medical) or will remain as A.H.P.
These vacancies will normally be open to pre-registration candidates applying for their first appointment and not to candidates seeking their second six months appointment.

Casualty Officers
Pre-registration 6

House Surgeons
1 Pre-registration
1 Pre- or Post-registration 2

House Physicians
1 Pre-registration
1 Pre- or Post-registration 2

Resident Obstetricians
Post-registration 2
(1 to commence 1.9.64.
1 to commence 1.11.64.)

Throat and Ear House Surgeon
Pre- or Post-registration 1

Neurological House Physician
Post-registration 1

Children's House Physician
Pre-registration 1
(2nd six months candidate only.)

House Physician in Clinical Pathology
S.H.O. 1

House Physician to Dr. Bishop and Professor Butterfield and Dr. Wayte and Mr. McArthur
Pre-registration 1
House Physicians in the Department of Psychological Medicine.
S.H.O. 2
(To commence 1.10.64.)
R.M.O. in Nuffield House
S.H.O. 1
Resident Anaesthetists
1 Post-registration
1 S.H.O. 2
The Medical Committee will also consider applications for posts at outer hospitals as follows:—

HITHER GREEN HOSPITAL
House Physician in General Medicine and Infectious Diseases
Pre-registration 1
(To commence 15.9.64.)

JOYCE GREEN HOSPITAL
House Physician
Pre-registration 1
House Surgeon
Pre-registration 1

LEWISHAM HOSPITAL
House Physician to Dr. Llewellyn Smith
Pre-registration 1
House Surgeon to Mr. Cavendish
Pre-registration 1
House Surgeon to Mr. Le Brun
Pre-registration 1

ORPINGTON HOSPITAL
House Surgeon
Pre-registration 1
(To commence 1.10.64.)

PEMBURY HOSPITAL
Orthopaedic House Surgeon
Pre-registration 1
(To commence 6.10.64.)

QUEEN MARY'S HOSPITAL, SIDCUP
House Physician
Pre-registration 1
House Surgeon
Pre-registration 1

ST. JOHN'S HOSPITAL, LEWISHAM
Casualty Officer
Pre-registration 1

NOTICE FOR PRE-REGISTRATION CANDIDATES

Pre-registration candidates are reminded that the number of posts at Guy's is small compared with the number of students who are likely to qualify. Students applying at Guy's, therefore, are advised to consider applying for pre-registration posts elsewhere at the same time, in order to avoid delay in obtaining a post. A number of recognised posts is available in the South-East region Details of posts in this region and elsewhere in the country are available in the Medical School Office.

Pre-registration candidates who have completed six months in Medical or Surgical posts are reminded that they must now apply for Surgical and Medical posts respectively. A candidate who has completed his first six months in a specialty (Surgical or Medical) may not do another six months in a specialty, but must seek a post in general medicine or general surgery as the case may be, according to G.M.C. regulations.

PAPERS BY GUY'S MEN

Calne, R. Y. and another. Cellular and vascular changes in kidney homotransplants in dogs. *Brit. J. Surg.*, 1964, **51**, 469.

Cooke, B. E. D. Leucoplakia buccalis. *Ann. roy. Coll. Surg.*, 1964, **34**, 370.

Grant, R. T. Obituary: Professor G. Payling Wright. *Nature*, 1964, **202**, 1057.

Grimble, A. S. Auto-immunity in Reiter's syndrome. *Brit. J. ven. Dis.*, 1964, **39**, 246.

Joseph, J. The activities of some muscles in locomotion. *Physiotherapy*, 1964, **50**, 180.

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BIRTHS

HOPE.—On June 9th, 1964, a daughter, Jane Katherine, at Ickenham, Middx., to Jean (née Booth, S.R.N.) and James Hope, B.Sc., Dip.Ed., a sister for Jamie and Deborah.

INGRAM.—On June 18th, 1964, to Jennifer Jane (née Butterworth) and Geoffrey Ingram, a son, Rupert Benington.

DEATH

LOWE.—On March 6th, 1964, at his home at 79, Windsor Drive, Chelsfield, Kent, A. S. Lowe, L.D.S., R.C.S.(Lond.).

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GUY'S HOSPITAL GAZETTE

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Editors *T. C. Davis*
B. H. Hicks

Sports Correspondent *N. J. Knott*

Guy's Hospital, London

PASSIM

Guy's House

The old and restored wings of Guy's House will be functioning by September 1st. This is definite. The most that the majority will have seen will be the outside and a little from a few hastily sprung glimpses into what one could imagine to be (and will be) a splendid new Dining Hall. However, the mottled outside does hold pleasant surprise. The Residents' quarters are extremely fine, well-designed and incorporating a radio, telephone, points for television and conveniently placed washing facilities as well as the usuals such as a divan (on rollers) and table and chairs. They will also have a cork board where the current pin-up favourites can be prominently displayed and improved. Perhaps this example is a good one to choose as it brings to light immediately the most heartening aspect of the conversion. There is no doubt that the designers have used their imagination to good and attractive purpose throughout this building. Minor faults will be found but they should be easy to remedy. The sisters' and nurses' quarters are necessarily a little more grand and enticing. The dining rooms and kitchens are spacious, airy and modern and one hopes that the food will be a little more succulent, and not only because of these new surroundings. Students' facilities are a great improvement and it is probably deliberate that the Bar is in the basement whereas the Dance floor is on the second. Another happy innovation is the provision of eating and recreational facilities for the non-medical staff. Under the Front Lodge the old wine cellars have been converted into what many landlords would like to be able to offer as the "gearest" coffee bar on the Mersey.

The two smaller quadrangles within Thomas Guy's original building are being turfed and the alcove from the old London Bridge is sited in one and Lambert's Statue of Lord Nuffield in the other. An attractive clock high in the wall of the front quadrangle is faced by an ingenious air vent (from the complete ventilatory system) in the opposite wall. We were told that a weathercock and wind gauge had been donated, to even things out, but wondered whether it would constantly record a 90 m.p.h. north-easterly. This proved small feed to the designers; it will record only the wind's strength and direction from the roof. All in all Guy's House should be very much welcomed; its delightful colour schemes and obvious usefulness (even when forced to design from within a set shell) will be a source of delight; you will only have to wait and see.

At the recent Annual Conference of the British Dental Association Professor Rushton was inducted President of the Association, and on July 4th Professor Bradlaw assumed office as President of the General Dental Council. We congratulate them both on their appointments.

$Au + H_2O$ = Help, but AuH_2O = ...

The visit of Mrs. Eunice Kennedy Shriver to this country should not be an embarrassment. She has come to launch an appeal for funds for the National Society for Mentally Handicapped Children. One and a half million people in Britain suffer from mental backwardness and this is a tiny proportion of all those necessarily involved in this problem. The difficulties of parents and families are legion and must be hard to understand well. How humane this appeal sounds when we remember the herd behaviour in Cow Palace, San Francisco, of only a week ago. In all fairness the only thing that Senator Goldwater seems to be able to look forward to, is the past; and how dangerous to extol extremism coupled with freedom when we know under how many ugly banners freedom has been paraded, and never as a sick child.

Professor Atkins has just been elected Vice-President of the Royal College of Surgeons and for the first time in the history of Guy's both the Presidency and the Vice-Presidency are filled by surgeons on the active staff of the hospital. The only similar occasion was in 1892 during the Presidency of Thomas Bryant, when Arthur Durham was Vice-President, but at this time Thomas Bryant had retired from the active staff.

Later this month the International Diabetes Federation will be meeting in Toronto, and a team from Guy's and King's College Hospital will be presenting results of the Bedford survey of 1962, with the first conclusions of the follow-up investigations on 250 residents. Over and above the considerable advance in knowledge which will follow from this survey, this was a brave social experiment in which a whole locality became the subject, and it deserved all the co-operation and interest that it stimulated. Toronto may not savour "socialised medicine", but this is socialised research at its best.

GUY'S DIARY

JULY

EXHIBITION.		*Catheterisation.*
28th T.	1.00	Dr. WAYTE. Clinical Lecture.
30th Th.	1.00	Mr. WASS. Clinical Lecture. *Swellings in the Scrotum.*

OBITER DICTA

Professor Atkins:
" I've been into wards in American Hospitals and nobody takes any notice of me at all."

Dr. Mann (commenting on a Guy's patient who has hit the headlines):
" What a remarkable story, I mean, it hasn't happened for 2,000 *years."*

DENTAL RESEARCH AT GUY'S

2. Department of Preventive Dentistry

This article has been written at the invitation of the Editor of the *Gazette* in order to indicate the various research projects which are being carried out by the staff of the Department of Preventive Dentistry. The work may conveniently be considered under the headings, Epidemiology and Laboratory Studies.

Epidemiological Studies

1. In 1961, under the auspices of the Nuffield Foundation and the World Health Organization, Professor R. D. Emslie visited Nigeria in order to study the natural history of cancrum oris, a disease which is virtually unknown in Britain but which still occurs in Nigeria and other countries. Although the disease is now rarely fatal, largely due to treatment with antibiotics, the facial reconstruction following this disease is a major problem for the paediatrician and plastic surgeon. Figure 1 shows a severe case in the acute stage.

The disease starts with a sore mouth often following a systemic illness such as measles or primary herpes simplex. The sore mouth inevitably shows the characteristic clinical features of acute ulcerative gingivitis (Vincent's disease) with a typical fuso-spirochaetal flora. From samples taken by Professor Emslie, mixed cultures of these organisms were grown from lyophylized or refrigerated inocula by Dr. J. B. Macdonald at the Forsyth Dental Clinic, Boston, Mass., which when injected into the guinea pig groin, produced necrotic lesions. From three of these specimens Bacteroides melaninogenicus was isolated, an organism found to be essential for the development of guinea pig abscess induced by injection of combinations of the fuso-spirochaetal flora. Since a possible reason for the high incidence of acute gingivitis in young children might be the amount of debris and calculus present, the oral condition of a sample of healthy children and young adults in a variety of areas was examined. This assessment showed that not all cases with localised Vincent's disease

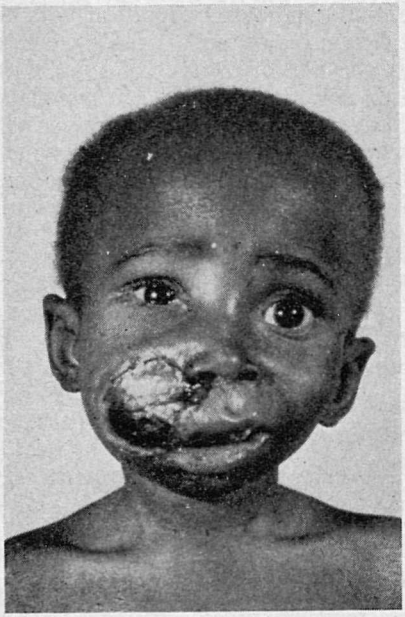

Fig. 1. A severe case of cancrum oris before the slough has separated.

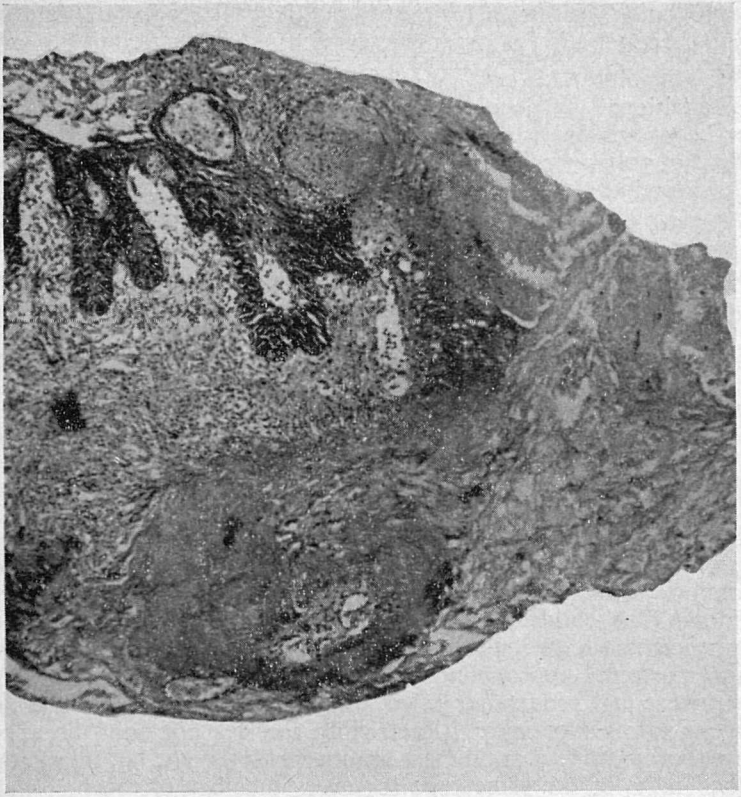

Fig. 2. A biopsy specimen of a lesion in the acute phase.

Note : on the right necrotic tissue ; on the left connective tissue covered with epithelium ; and between, a dense mat of gram-negative organisms.

or early cancrum oris had dirty mouths. Many of the young children with sore mouths were clinically diagnosed as having primary herpes simplex, the diagnosis of some of whom was confirmed by the presence in smears of epithelial giant cells (Cooke 1958).

In order to test the hypothesis that primary herpes simplex was a frequent initiating disease of cancrum oris, serum was prepared and sent deep-frozen to Dr. F. O. McCallum at the Radcliffe Infirmary, Oxford, where complement fixation and neutralisation tests for herpes simplex antibodies were carried out. These tests confirmed the clinical impression that in these young children primary herpetic gingivo-stomatitis must not infrequently be a precursor to Vincent's disease and sometimes cancrum oris.

Histological examination of biopsy specimens showed that there was an abrupt separation between the living and necrotic tissue, the junction being formed by a dense mat of micro-organisms which appeared to be mainly gram-negative thread forms (Fig. 2). It was not possible to determine what proportion of this mat was Borrelia

vincentii and Fusiformis fusiformis but it was clear that there was very little penetration of organisms from the main mass into the living tissue.

Nutritional deficiencies, especially of protein and vitamins, have often been regarded as predisposing causes of cancrum oris. However, whilst not ruling out these factors no evidence was found that low serum protein values were important in this respect.

2. In 1963, another visit to Africa, this time to the Sudan, was undertaken by Professor Emslie. This study was supported by W.H.O. for the purpose of investigating oral health. Assessments of periodontal disease, dental decay, calculus and debris on the teeth, dental fluorosis (plentiful in the Sudan) and haemoglobin levels were made in 1,000 children. These results are at present being statistically analysed.

3. Nearer home, Professor Emslie and Dr. M. N. Naylor are conducting a clinical trial to test the caries-prevention properties of two fluoridated toothpastes against a non-fluoridated control paste. This trial is one of a number currently in progress in Britain, all of which are being carried out in closest co-operation. The study is planned to last three years and is being carried out with the co-operation of the L.C.C. and schools in the East and South East London. The children were aged between 11 and 12 years at the commencement of the study and at the end of the first year's examination numbered approximately 1,850. They were divided randomly into three equal groups, stratified according to school, sex, race and previous caries experience. Each child receives not only the appropriate toothpaste free in the post at monthly intervals, but in addition, enough paste of the same type for every member of the household. By flooding the home in this way the possibility of introducing non-experimental pastes is minimised. The children are given class instruction in the principles of oral hygiene and encouraged in the use of toothbrush and paste by means of talks and sound films.

In any investigation such as this it is important to standardise the conditions of examination. It is for this reason that a mobile examination unit was designed. The unit, which is built upon an Austin 3-ton chassis (Fig. 3) consists of a small waiting room for five children and a main examination room. In order to obviate the weight of a standard dental chair and the need for its constant adjustment to accommodate children of variable size, all examinations are carried out with the child in the supine position upon a clinical couch (Slack 1961). All examinations are made by the same examiner, who sits at the head end of the couch and examines from above. Standard detachable probe points are provided and standard illumination from a head-lamp is used for the examination. Each surface of all permanent teeth is examined and assessed as sound or carious. If a carious assessment is made its extent is connoted according to the amount of the surface destroyed. In addition to examination for caries, note is also taken of developmental defects of the teeth, the state of oral hygiene and the presence of periodontal disease and calculus

deposits. All findings are recorded on Dictaphone belts using a voice-operated-relay device.

After clinical examination bilateral bite-wing radiographs are taken of the molar and premolar teeth in order to detect early approximal carious lesions. To ensure constant conditions as far as possible, the tube-film relationship is standardised by means of a modified Backer Dirks film holder, an electronic time-switch and line voltage controller has been incorporated in the X-ray machine, and a standard developing procedure for the film has been devised.

The trial is double-blind, neither the child nor the examiner knowing which of the three pastes is being used. The trial is now in its second year and since the key to the allocation of paste is not to be broken until the end of the third year there is no indication yet of the results.

In addition to the information gained on the effects of fluoridated toothpastes this trial is providing much useful and interesting data on the caries incidence, prevalence and extent in the particular age-group under investigation. Further, this investigation is also providing material for Professor W. J. Tulley and Mr. B. S. Cryer, of the Dental Department for Children, who are investigating possible relationships between sigmatism and malocclusion.

4. Another clinical trial in progress is designed to test the efficiency of a toothpaste containing a chelating agent, in inhibiting the deposition of salivary calculus. This trial is only in its early stages and again since it is double-blind in design there are no indications of the results.

Fig. 3. The mobile examination unit—internal arrangements.

Laboratory Studies

Dr. Naylor, assisted by Mr. R. F. Wilson, is studying the metabolic effects of varying concentrations and varying intakes of fluoride administered by means of the drinking water. Following Professor Emslie's recent visit to the Sudan where there is considerable mottling of the teeth due to fluorosis, the question has arisen whether dental fluorosis depends upon the absolute amount of the fluoride ion ingested. This question is being studied by means of experiments in which albino rats are fed known volumes of drinking water of varying fluoride concentration. Since fluorides are known to be enzyme inhibitors when present in high concentrations the effect on tissue respiration of organs such as liver and kidney is being studied by means of the Barcroft-Warburg micro-respirometer technique. At the same time weight gain, littering frequency and size are being recorded to determine any effect which fluorides might induce. On the same tissues, Dr. R. Ten Cate is investigating by means of histochemical techniques the presence and distribution of selected metabolic enzyme systems. Preliminary data indicate that even after consumption of water containing 100 p.p.m. fluoride for 6 months there is no effect upon tissue respiration or enzyme distribution.

Since the vast majority of fluoride ions which are retained accumulate in the mineralised tissues, opportunity is being taken to examine the effect of fluorides upon the physical properties of long bones. Dr. R. Duckworth, of the London Hospital Medical College, Dental School, using a radio-isotope technique is estimating the fluoride levels in the cortical bone while here at Guy's, by means of a technique essentially similar to that described by Bell *et al* (1941), the elasticity and breaking stresses of the bones are being determined.

M. N. NAYLOR.

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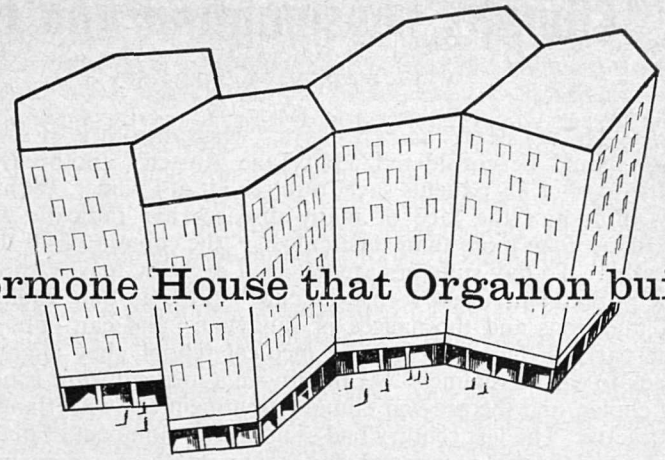
ROBERT COUCH HAMMOND

An Appreciation

Bob Hammond died on the 22nd June, 1964, after a short illness at home. He was 62 years old. He first came to Guy's in February, 1948 and, except for the first year, he was *the* night porter stationed at the Front Lodge of the hospital. So for almost 16 years he was known to the medical and nursing staff and, of course, to those who did night duties. In his way he thought a great deal of Guy's Hospital. To anyone, whether they were Guy's staff, students or patients, he was always very helpful and really enjoyed being at Guy's. Nothing was too much trouble for him and he had a wonderful sense of humour. During the 16 years at Guy's he never had any time off for illness. Bob was always willing to lend a hand when required. He particularly enjoyed pottering about in his garden and playing with his dog. I am sure that he will be greatly missed by all those who knew him.

He leaves a wife and son to whom we extend our deepest sympathy in losing such a grand chap.

The Hormone House that Organon built



This is the idea that started the plan of the Hormone house that Organon built.

This is the researcher who had the ideas that started the plan of the house that Organon built.

This is the rat that was there at the start, as well as the cows, the sows and rabbits that enabled the researchers to probe the secrets of the hormones which built the house of Organon.

These are the workers who mixed the chemicals that joined up the molecules to make the bricks of the house that Organon built.

This is the doctor who found that the hormones helped his patients and prescribed the products of the house that Organon built.

Organon

THE HORMONE HOUSE

Organon Laboratories Ltd., Crown House, London Road, Morden, Surrey

Climate, Consumption and Cold

by C. P. W. WARREN

"Ah! my dear," as Perry says, "where health is at stake, nothing else should be considered"; but Jane Austen's apothecary had very little to offer his patients save fresh sea air at Cromer. With the coming of antibiotics the face of many diseases has radically altered, and perhaps none more than tuberculosis; "the captain of all these men of death". To-day sufferers are detected early by mass radiography and their treatment usually ensures cure. Still, as they endure the pain of injections and the nausea of salicylates, and can only look across the park to the smoke-grimed medical school, they might well think back to earlier régimes. Six months in a medical ward is not an abode of choice, and the pre-war climatic treatment of Switzerland must seem attractive. The last century had seen the development of many watering spas and health resorts; to-day, many of these places have become tourist resorts, and the books on the subject gather thick dust in the Wills library. These neglected volumes are guide books to the world, and range from Harrogate to Hamman Rihr in Algeria, with even Blackpool represented. The return to health initiated at these places may well, for the most part, have been due to the substitution of water for other indulgences; but in the case of tuberculosis sanatoria became the only good therapy available and were, by the end of the nineteenth century, the prerogative of the Swiss.

In 1830 Dr. (later Sir James) Clark, physician in ordinary to H.R.H. Prince Leopold of Saxe Coburg, published his book on the influence of climate on chronic disease. In it he states that "there is no disease in which change of climate is of so much importance as Consumption, but it must be admitted that there is no one in which the hopes, founded in such a change, are more constantly disappointed." This belief in the efficacy of change of air started with Hippocrates, and Dr. Clark points out that the subject was still controversial and that physicians of his day were no better at the treatment of tuberculosis than their predecessors of ten, nay twenty centuries ago. From his views on the nature of the disease he concluded that prevention, not cure, was the answer to the problem. Pathologists had then recently demonstrated the presence of tubercles in the lung, and although some thought these to be the result of inflammation he did not agree. The view Dr. Clark held was that of Dr. Todd who, in 1829, "felt the essential cause was the unhealthy nature of the lymph, the effects of a general cachectic state of the body."

This cachectic state was usually due to a hereditary taint and was also predisposed by sedentary occupation, urban dwelling, cold, poor diet and clothing, abuse of liquor and above all, which will satisfy believers in psychosomatic medicine, depressing passions, which Laennec considered to be the most frequent cause. Thus they viewed the patient as a whole. The object of treatment was to prevent development of this prodromal phase and outdoor exercise with mild

fresh air was considered essential for all people susceptible to it. The late President Kennedy's concern with his nation's physical fitness might have echoed Clark, who in advising parents on schools for their daughters says, "they must be assured that exercise is as essential to the moral as well as the physical health of their children, as any branch of education which may be taught." Clark's treatment was also aimed at relieving the organs which, in the cachectic state, were overloaded by circulating fluids and were then liable to tubercle : a hypothesis dropped now, for pulmonary congestion is the modern explanation of the immunity of mitral stenotics to apical tuberculosis. This congestion was exacerbated by cold which causes peripheral vascoconstriction; "as one moves northwards, or are in any way exposed to cold, pulmonary diseases, commonly of a tuberculous character, become very frequent," as was shown in tropical troops moved to Europe and from post-mortems on monkeys who died in the Jardin des Plantes, Paris. Once the cachectic state had developed then a move to a warmer climate was needed; the best place being Madeira. However, many patients were sent there too late, and Dr. Renton, in the Edinburgh Surgical Journal of 1827, wrote " that the annual importation of invalids from England is thought a fit subject for ridicule among the boatmen, who say, on landing these unfortunates on the island, ' there goes another Englishman to the orange tree ' (the burying place of the Protestants)." Switzerland is only recommended as a summer residence for those wintering in Rome and Pisa; but "much caution and prudence are required on the part of invalids labouring under pulmonary affections who remain there." The Lake of Geneva, not too high nor too low, was the best resort and, residence there should be coupled with the "Cure de Raisins" for "of the salutary effects of ripe grapes in various diseases, there can be no question": for example, several pounds a day was the advised dose for haemorrhoids since they relieve congestion. Iodine was at that time being tried for tuberculosis but Clark discredited it, having seen the very considerable mischief resulting from its use in goitre. As an illustration of his views he quotes a case history of Borden, written in 1775, and which foreshadows the later principles of tuberculosis treatment in Switzerland.

"The child of a peasant in Barêges, a celebrated watering place among the higher Pyrenees, attracted the attention of the visitors from its fine appearance and quickness, especially of a Princess, who took the child under her care. Previously to this, the child slept upon the grass, in common with the sheep, its food being of the coarsest quality, its drink a little whey, often sour. It was now placed in very different circumstances, was fed and clothed and attended to with greatest care; but from change of diet and want of mountain air, the child soon began to droop; the mesenteric glands became diseased, and general scrofula declared itself: she died in less than a year. When taken by the Princess it was more healthy and vigorous than its elder brothers, who continued to enjoy health among the mountains, though the whole family were disposed to scrofula."

Dr. William Gull is quoted for he had a case, Jessie S., age five months, who had an attack of convulsions in September, 1849. The

little patient had a nursery at a great elevation and exposed to the east winds then blowing. The illness followed derangement of the liver and colon; the former organ being susceptible to influence by atmospheric causes. In the Spring of 1850, when the wind backed to the south-west, she recovered, as the liver worked better, only to relapse later in the year, when the wind swung again to the east and improving with change of the wind to the south-west again. Unfortunately, effects of the Alpine Föhn are not recorded.

Like Dr. Clark, Dr. Francis who wrote on climate, felt prevention of tuberculosis was important and above all, avoidance of the cachectic state. Cold, damp air was harmful and, for consumption, Malaga and Rome were good habitations, but with the warning that "in counting, as some have done, the tombstones to our countrymen that lie beneath the shadow of the pyramid of Caius Cestius at Rome (burial place of Keats and Shelley) the patient must not be alarmed, for one sees only a fixed record of the dead and not the number who are cured". Too healthy companions were not the best ones in as much as "picnics and sketching parties, and visits to cold ruins, marble-paved museums and churches are most hurtful amusements to the invalid." Nice, with its parties and social life, is also condemned : however, a considerate companion is needed by the sick traveller to deal with his passport and luggage.

Deep narrow valleys were not suitable resorts for they fill with vapours and malarial exhalations and were the chosen abode of goitre and cretins. The nature of the soil was important, since besides influencing the temperature and humidity of the air, it conducted electricity and absorbed gases from the atmosphere. Altitude was often effective for health but only if there were not extremes of temperature. At this time variations in oxygen content of different climates had been shown, and the presence in the atmosphere of the irritant, ozone, and which, in excess was known to injure the respiratory organs; in Basle during an influenza epidemic, ozone was detected in large quantities in the air. But a small amount of ozone destroyed poisonous gases, especially those produced in towns, and purified the air. Cod-liver oil was a valuable medicine for consumption and, due to its scarcity and the exorbitant price charged, travellers on the Continent were advised to take their own stone bottle from England.

Dr. Francis does not mention Switzerland, but one might digress to his advice on indigestion, where a holiday "beyond the range of the penny-post and, if it were possible, of the overstimulating Times," should be had. Horse-riding in Spain and Portugal, with its semi-Bedouin life was ideal, for "his fare will be simple, and his bed hard; the latter, sometimes, indeed, not altogether inanimate; but the digestive system will be strong and the sleep sound; and for the rest, the Spanish proverb says, ' He who sleeps well cares not for fleas '."

In 1843, Dr. Bodington, of Warwickshire, recommended " dry, frosty air" for pulmonary consumption. In 1853, Dr. Alexander Spengler went to Davos as district doctor, having been forced to leave

Baden for partaking in a revolution. He noticed that, despite poor housing, tuberculosis was very rare in the area, while Davosers who had gone away for work often returned consumptive but, to his astonishment, soon recovered: an observation reminiscent of the case history of Borden, the significance of which was not seen at the time. Dr. Spengler, like others, believed in the mild, southern climate for alleviation of consumption, but he mentioned his finding to friends. Slowly patients came to try Davos and the resort developed; but against the opposition of the medical profession, who feared above all the deleterious effect of the cold, as well as haemoptysis, since nose and ear bleeds had occurred in mountaineers at the height of 17,000 ft. in the Andes. In the early days the cold was distrusted but exposure of patients was increased gradually as no harm was found to result from it; haemoptyses in fact were less. Diet, with an emphasis on milk, was important, while the patients, against the doctor's advice, often indulged in cognac drinking. One of the unpleasant treatments was cold douching; high pressure water at 4°C. followed by a cold rub-down. At this time only light exercise was taken and the patients spent most of the time lazing in hammocks slung in the neighbouring woods. Thanks to the publicity of Dr. Hermann Weber in London, and others on the Continent, this became the standard treatment for tuberculosis.

In 1888, Dr. Tucker Wise wrote a book on Alpine Winter and its medical aspects with Davos, the Engadine and Maloga assessed. In his introduction he deplored several features of English life, including the love of the open fire-place so deep-rooted in the English breast, and the damp frigidity of our bedrooms; both comments still voiced by visitors to our country. He pointed out the effects on the Anglo-Saxon race of living in such cold places as Canada, where the race is physically superior and more vigorous than the parent stock.

By now, climatology was an exact science and its influence on physiology was being fully investigated. In the mountains the air was dry and sterilised by its passage over glaciers and snow-fields; the dust being precipitated by snow. Cold was shown to be a powerful tonic and bracing, for it stimulated metabolism, allowed the lungs to absorb more oxygen, and induced a quicker change in red corpuscles, thus benefiting anaemia. Rabbits and mice, which live underground, are very susceptible to the poison of tubercle and whether this was coincidental or not, sunlight was considered very good for health. At a height the diminished pressure decreases the uptake of oxygen by the blood, but it enhanced the chemical combination of oxygen with body carbon, therefore increasing carbon dioxide formation. Dr. Henderson, in the Glasgow Medical journal of 1885, recorded the fullness and redness of the face in the peasants of the Engadine but felt it was due to peripheral vasodilation: polycythaemia had not yet arrived. Ozone was considered to be of vital consequence in the purification of the air from micro-organisms, and for its formation the natural electricity in the Alps was important.

The régime of the patients consisted of hotel residence and registering with a doctor. They wore warm, but loose, clothing; corsets

were forbidden. Food in Switzerland was mainly "azotised and nitrogenous matter," that is to say lean meat, and Dr. Pavy pointed out the great need of plenty of fat to supplement this diet when in a cold climate. For therapy pancreatine had joined cod-liver oil, the latter made more palatable by taking it with marsala. Exercise was very

important and "no drugs in the whole Pharmacopoeia produce any effects resembling the inflation of an unexercised apex of lung, or the expansion of an indolent thorax, in comparison with tobogganing." On smoking there was modern advice: "cigarettes should be discontinued, since the smoke proves very injurious to the mucous membranes, and is more injurious to the lung and throat than the same portion of tobacco smoked in a pipe." The one disadvantage of the Alps was the spring Föhn wind which was depressing, disturbing both sleep and digestion.

In 1906, Davos was the subject of a book prepared by the doctors who worked there, with an introduction to the English edition by the British Consul, Dr. Huggard. By now, the resort had 20,000 visitors a year and considered itself second to none. It had had many struggles, for once the antipathy of the doctors to the cold cure had been overcome, heavy falls of snow and avalanches discouraged visitors. This was dealt with, and then the problem was that of overhousing, with especially the British complaining of the poor sanitation and smoke pollution. In the late eighties the number of patients dropped due to scare of infection following Koch's discovery of the tubercle bacillus. This did not last long, for investigations proved the fears to be groundless and it was shown that there had been no increased incidence of tuberculosis in native Davosers since formation of the resort. Strict laws were passed on the disinfection of rooms, the carrying of pocket spittoons was made compulsory and spitting on the ground an offence. In 1890, Koch again nearly closed the resort

for reports of his tuberculin cure led many consumptives to leave for Berlin. The inoculations were sent to Davos and tried, but with little effect. Soon Sanatoria were built and the treatment, including surgery, was not to change until after the Second World War. There was a high standard of intellectual life in the community, both Sir Arthur Conan Doyle and R. L. Stevenson from England spent time there, while Thomas Mann set "Tristan" and his Nobel prize winning "The Magic Mountain" in Davos. Sport, particularly with the English, was very popular, and in 1907 it was the site of the first principal ski meeting in the Alps; it is on this that Davos's present prosperity depends.

The physiology of the mountain climate had advanced. Dr. Saake had found that on mountains the air contained up to five times more radioactivity and that the electric potential, i.e. the tension difference between the positive air and the negative earth increased with height, and both factors caused an increased accumulation of radioactivity on man; but with what effect on health is not said. In the mountains, digestion improved, helping constipation, and besides increased metabolism, there was nitrogen retention. By now the polycythaemia, appearance of peripheral nucleated red cells, hyperaemic marrow and increased blood iron, which occur at an altitude, had been detected. There was controversy over the mechanism, but Professor Bürker, working on rabbits' total red cells at Basle (600 ft.) and Davos (5,250 ft.) proved it was an absolute increase. Several other explanations had been put forward, including that the dry air caused the body to give off more water and raised the haematocrit; another was that the blood vessels constricted and pushed serum out into the lymph, and perhaps the best was that it was only an artefact, because the coverslip of the Zeiss-Thoma haematocytometer was further from the ruled slide due to decreased atmospheric pressure.

The diseases improved by high mountains were, above all, the prophylaxis of tuberculosis; active pulmonary tuberculosis with pulse below 120; pleuritic, laryngeal, cutaneous and glandular tuberculosis; asthma; dyspepsia; constipation; nervous trouble and especially neurasthenia; Grave's disease; malaria; gout; mild diabetes; obesity; rickets and possibly syphilis. Contra-indicated were severe forms of the above, genito-urinary tuberculosis; rheumatic disease; cardiac disease; atheroma; chronic nephritis; pernicious anaemia and leukaemia.

The tuberculous patients spent most of their day lying flat out of doors; this being interspersed with reasonable exercise, curling and skating being suitable in winter. Dry, wet and alcoholic friction with wet compresses and douches were given as stimulants; similar measures to those used by Dr. Clark to encourage peripheral vasodilatation and stop congestion of the organs. They were encouraged to eat, and creosote and cinnamic acid were tried as medicaments. For a mild case the stay was at least six months but it often became years. "Clothes should be strong and warm"; fur and felt boots were too "coddling" and to-day's fashionable fur caps interfered too much with the ventilation of the head. Cross infection was minimal in the

resorts due to the strengthening of the patients' constitution against it and the laws on fumigation which had been passed to control it. The cows were also carefully checked for tuberculosis.

The typical day for a patient at Dr. Turban's Sanatorium was:—

7.0 a.m., rise.
7.30 a.m., 1st breakfast.
8.0 a.m., douche.
8.15—9.45 a.m.,Uphill walk—with frequent rests.
9.45—10.30 a.m., rest cure.
10.30—11.0 a.m., 2nd breakfast.
11 a.m.—12 noon, level walk—with frequent rests.
12 noon—1 p.m., rest cure.
1—2 p.m., lunch.
2—2.30 p.m., stand and sit, open air.
2.30—4.0 p.m., rest cure.
4.00—4.30 p.m., tea.
4.30—6.0 p.m., level walk—with frequent rests.
6.0—7.0 p.m., rest cure.
7.0—7.45 p.m., dinner.
8.0—9.30 p.m., rest cure and milk at 9.
10.0 p.m., bed—windows open.

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The nineteenth century saw several changes in tuberculous therapy, but the important one was the turning from warm to cold climates. The principles of medicine stay the same but the practice has always varied, even if in a cyclical way; certainly the semi-scientific assessment and explanation of results continues. Perhaps G. B. Shaw as so often, should have the last words for in The Doctor's Dilemma, Sir Patrick Curren summed up: "There was my father's old friend, George Bodington, of Sutton Coldfield. He discovered the open air cure in eighteen-forty. He was ruined and driven out of his practice for only opening the windows, and now we won't let a consumptive have as much as a roof over his head." Perhaps with antibiotic resistance developing, climatic therapy will return; Sir Patrick said: "most discoveries are made regularly every fifteen years," and it is just this period since the introduction of the modern treatment of tuberculosis.

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Two Inns

As an aperitif, before the main series begins, a little about the history of The George and The King's Head. The exact date of erection of The George has not been found out but it was definitely called St. George in 1554. Later, on account probably of the changed feeling with regard to these saints the sign became plain George. A return of 1634 indicates that the Inn, and the tenements within it, were built of brick and timber. In the fire of 1676 the Inn was completely destroyed but was rebuilt later by a tenant who had acquired himself a reduction in rent in order to do it. By 1825 The George was reported as "a good commercial inn", it was the stopping place of coaches "laden with the merchandise of the metropolis, in return for which they bring back the hop, to which we are indebted for the good quality of the London porter".

The King's Head was another of the inns burnt down in the Southwark fire of 1676, and again the tenant, after appealing to the Court of Judicature, was allowed to maintain a new inn at a reduced rent. By 1720 the inn was reported as "handsome and enjoying a good trade" and sported a well-painted half-length of Henry VIII. However, the last remains of this good building were pulled down by 1885. At this time it was occupied by a widow who managed a profitable sideline in hansom cabs to extend her income. She had several sons to maintain.

NOTICE

Guy's Hospital Nurses' League

The Nurses' League have allocated a sum of money to allow three members who are not incorporated within the present Nursing Staff and also three members of the current Staff to attend the Congress of the International Council of Nurses in Frankfurt in June, 1965. Applications to the Matron by August 19th.

REPRINTS

10. *Immune Diseases and Autoimmunity*, by M. H. Lessof.
11. *Transplantation Immunity*, by Shireen Saleh.
12. *Current Virology*, by R. H. Gorrill.
13. *The Genetics and Biochemistry of Drug Resistance in Bacteria*, by R. Knox.
14. *Isoenzymes*, by A. N. Davison.
15. *The Pathogenesis of Cancer*, by J. O. Laws.
16. *Biochemistry and Schizophrenia*, by N. A. Gregson.
17. *The Chemistry of Connective Tissue*, by Margaret Whichelow.
18. *The pH of the Blood*, by W. L. G. Gent and J. R. Trounce.
19. *Insulin*, by J. S. Cameron.
20. *Chemical Studies on Myelin and the Demyelinating Diseases*, by C. W. M. Adams and G. R. Webster.

J. C. COLBECK

An Appreciation

Chris Colbeck was one of those colourful personalities who made an immediate impression on everybody who met him, not because of any flamboyance but by virtue of his engaging and joyful approach to life.

He came from adventurous Yorkshire stock. His father was Scott's navigator in the Polar expeditions and two of his brothers followed the family tradition as navigators in various Polar journeys, including the Mawson expedition in the ship "Discovery". The family is commemorated in the Colbeck Archipelago in Antarctica. Chris's large, blonde frame proclaimed his Viking ancestry and something of this instinct of enquiry turned him to medicine.

After the usual house appointments, he joined the Bacteriology Department under Professor John Eyre and there found full scope for his love of experiment and the freedom to indulge it. In order to be near his work he lived in a gaily decorated garret over a barber's shop in the Borough High Street, over which he displayed a sign Samson GUBB, gig cutter, so as to disguise his retreat. There he would entertain his friends with good talk, original and often delicious food prepared by his Chinese cook or by himself, and an abundance of drink. Time became of no consequence and an evening would pass into dawn without one noticing it. On one occasion, the early hours were shattered by his making a monogram in the back of the fireplace with bullets from a .22 rifle. His exuberance knew few bounds and found many outlets in both work and play. In the former no timetable was allowed to interfere and any could call on his help at any time of the day or night and his opinion was always accurate and critical. One summer before the war, he took a flimsy collapsible rubber boat on the Rhine and from there finally toured the Finnish lakes before returning to England.

On the outbreak of war, he took charge of the Emergency Public Health Laboratory at Downe Farm, near Biggin Hill, and there he soon dispelled any disappointment at not being accepted for service with the Armed Forces by placing himself unreservedly at the disposal of the R.A.F. stationed nearby. During the Battle of Britain, when Biggin Hill became the major enemy target, he served them unofficially as casualty officer, pathologist and general friend in need. He was elected an honorary member of the Officers' Mess, a distinction to which he did full justice.

At the end of the war he went to Warwick as County Pathologist and thence to the West Riding of Yorkshire in a similar capacity. By then he had married and for the sake of his family decided to emigrate. He foresaw that the strait-jacket of post-war bureaucracy might stultify his own strong individuality and that of his children and for the past ten years his family has lived in Canada, first in Winnipeg and then in Vancouver, where he was Pathologist at the Shaughnessy Hospital.

No such record can do justice to Chris Colbeck who, in spite of a long absence from Guy's is still remembered with affection by all who knew him for his versatile originality, his stimulating gaiety, his fearless integrity and his deep and lasting friendship. He had no enemies and one is immeasurably grateful to have been one of his friends.

Pupils' Physical Society

The Annual General Meeting of the Pupils' Physical Society will be held at 5 p.m. in the Committee Room, Students' Club, on Thursday, July 30th. All Clinical Students are welcome.

Nominations for the election of officers should reach the Secretary by this date.

CHRISTINA LAWRIE.

REVIEWS

CONYBEARE'S TEXTBOOK OF MEDICINE.

Edited by W. N. Mann, M.D. (Lond), F.R.C.P., 14th Edition, 1964. E. & S. Livingstone, Edinburgh and London. Pp. 1048. *Price* 63*s*.

This is a deceptively simple book, and here, perhaps, lies the secret of its continuing success. This is the first edition to be produced since Sir John Conybeare relinquished the senior editorship. Its prompt appearance, greatly revised, within three years of the last edition, is a tribute both to the popularity of the book and to the up-to-date approach of its authors.

The list of authors includes some of the best-known names in British medicine. A very informative and interesting account of Diseases of Infancy and Childhood by Professor R. W. B. Ellis has somehow been compressed into the space of thirty pages. Dr. Charles Baker, in his chapter on Diseases of the Cardiovascular System, has included not merely a clinical account of his subject and a review of electrocardiography, but also a succinct appraisal of cardiac catheterisation and of dye curves. Professor Rosenheim, writing on Diseases of the Kidney, emphasises renal physiology and the treatment of common disorders and also, in a few sentences, puts renal biopsy and the newer radiological investigations into perspective. Professor Black writes on Disorders of Body Fluids. Dr. P. M. F. Bishop's chapter on Disorders of the Endocrine System is a masterpiece of compression. A lucid account of the mechanisms of auto-immunity introduces a chapter on Affections of Connective Tissue, Joints and Bones, written by the Editor. Professor Curran and Dr. Partridge end their chapter on psychological medicine with sections on Criminal Responsibility and on Civil Law. All of these chapters are excellent; and there are many others. In addition, there are a number of line drawings and illustrations and a remarkably good series of X-ray plate reproductions.

At three guineas the new edition of this comprehensive textbook of medicine is once again assured of its place in the affection of students and doctors; and once again it provides remarkably good value.

M. H. Lessof.

ANATOMY AND PHYSIOLOGY FOR JUNIOR NURSES.

by F. Norton. Faber, 10th Edition. 1964. Pp. 109. *Price* 9*s*. 6*d*.

"Anatomy and Physiology for Junior Nurses", by Felicie Norton, is intended as a concise reference book for junior nurses; it fulfils this purpose extremely well. It is clear, easily-read and contains sufficient detailed information required by the nurse for her preliminary examinations. In particular, the nervous, muscular and skeletal systems, which almost every nurse finds difficult and tedious to learn, are explained fully and in easily understood terms. I did wonder, however, why only six of the cranial nerves are mentioned. Even nurses have to struggle with all twelve. Naturally, in a book as abbreviated as this, one does not expect to find all the information the nurse will eventually need. For example, there is no mention of blood groups and their compatibility in the section dealing with the circulatory system. Nevertheless, most of the facts a nurse will need at any time during, or after, her training, are included.

The illustrations are much less commendable and they contribute little to this book. In fact, they are rather confusing. Simple line diagrams, as opposed to actual drawings of the organs, would be far more useful and instructive.

However, nurses of all grades of seniority could profit from reading Miss Norton's book, both prior to entering Training School, as an introduction to Anatomy and Physiology and also as sound revision for the Preliminary State Examination and State Finals, when basic Anatomy and Physiology is a little hazy to say the least.

Penny Dawes.

REPORTS OF THE INSTITUTE OF LARYNGOLOGY AND OTOLOGY AND THE ROYAL NATIONAL THROAT, NOSE AND EAR HOSPITAL.

Vol. 13, 1962-1963, published by the British Post-Graduate Medical Federation of the University of London.

These annual volumes, of which this is the thirteenth, provide an excellent indication of the progress which is being made both in research and treatment at this important centre.

The papers comprise those published during the year by the staff of the Institute and Hospital, and also the lectures delivered at the Institute during the year by distinguished visitors.

The general level of the papers is extremely high, and one would single out several as being of great interest and importance.

Carcinoma of Laryngo-pharynx, results of radio-therapy, by M. Lederman, is an authoritative essay on this subject, and well repays perusal.

The relationship of Osteomata of the external auditory meatus to swimming, by D. F. N. Harrison, is a masterly example of clinical research into a common disorder, and serves well as a model which other research workers might study with profit.

Professor I. Friedmann is represented by three papers, of which, *The Cytology of the Ear*, based on work with the electron-microscope, throws fresh light on the minutiae of the cochlear structure. Another, by the same author in collaboration with J. C. McAlpine and A. Radcliffe, on *Primary Amyloidosis of the upper air passages*, is a clinico-pathological review of the disease in eleven patients. The histological description and microscopic studies are particularly valuable.

Among the lectures delivered at the Institute, that on *The Clinical Significance of Malignant Tumour Cells in the Blood*, by Professor Herrmann, and that of J. A. de Vos on the *Deafness in Hypothyroidism*, are of the greatest interest.

The last paper, by Professor D. F. N. Harrison on the *Treatment of Advanced Carcinoma of the Head and Neck* by a combination of intra-arterial infusion and systemic chemo-therapy, represents one of the greatest advances made in the treatment of cancer. It should be read by all who are interested in the problem of treating advanced cancers.

This volume makes a great impact on the reader, and will prove valuable and interesting not only to those who specialise in the ear, nose and throat, but the general surgeon and physician also would derive benefit from it.

P. V. READING.

INTRODUCTION TO THE WORK OF MELANIE KLEIN,

by Hanna Segal, Heinemann. 1964. 1st Ed. Pp. 118. *Price* 16*s*.

As stated in the introduction, this book is based on a series of lectures given to students in their third year of analytical training; and a thorough grounding in Freudian psychology is taken for granted. The style is lucid and easy to read, but the use of psychiatric terms to describe normal developmental stages can be confusing. The free interpolation of dream fragments, stimulating in the lecture, is somewhat disconcerting when seen in undifferentiated print. Inevitably there is the glut of scissors, breast and phallic symbols; but, for most of us, the " iceberg-breast with teeth " (representing persecution) is a new one.

The analysis of a " hebephrenic adolescent " (who was more interested in the pillow on the couch) need not be taken as standard psychiatric practice.

Kleinian concepts are freely compared with those of Freud and there are pointers on the method of analysing children.

The bibliography is extensive and the index complete. It is a small book medium priced with particular appeal to the specialist.

K. LOUCAS.

SPORT

CRICKET

The result of the Inter-Hospitals Cup Final proved to be an extremely disappointing one for Guy's who were outplayed in every quarter of the field by the London. Revenge was sweet for the London Hospital who were trounced by Guy's two years previously. This was a good effort on their part as they last won the Cup in 1908.

Both sides were nearly equal in batting strength, with the Guy's tail perhaps being stronger than its counterpart. The Guy's bowling, however, in theory should have proved far superior in every department, but this was not the case. The Guy's batsmen, in nearly every instance, brought about their own downfall, but perhaps there could be allowances made in the first innings.

Guy's fared badly in their first innings on a green wicket which gave the bowlers plenty of encouragement, and one wondered what havoc would have been wrought by Walter and Knott had Guy's won the toss, as both these bowlers were yards faster than their opposite numbers. The wicket, after lunch on the first day, dried out considerably, and left little evidence of the previous day's deluge.

The London opening pair batted well, on a by now, docile wicket, and at 70—0 it was evident that Guy's might have a large deficit to make up on the first innings. However, the luck changed, and after a fine stumping by Price, the London were left in a vastly different position at the close of play. The London tail-enders batted comfortably on the morning of the second day for ninety minutes, and when the innings was finally closed at 168, it looked as though Guy's were not going to find it difficult to amass a large total. However, lack of resolution (or was it over-confidence?), left the recognised batsmen in all sorts of trouble, and it was left to the Captain, Price, and Walter to try to salvage the wreckage. This they did fairly satisfactorily, but the pressure of the situation did not allow room for error. At one point it looked certain that the London would win in two days, but the last three batsmen batted for two and a half hours, and when Walter was out at ten to six, the London needed 83 to win. These runs were struck without any real incidents, and the London deservedly won by seven wickets to deny Guy's their seventh Cup win in ten years.

Against the Rabbits, Guy's were anxious to add to their win against Crofton Park earlier in the season, as this side consists mainly of Crofton Park players. Unfortunately, a deluge after one hours play put paid to the proceedings for the rest of the day.

Walter had a field day against the London New Zealand Cricket Club; bowling with much venom and at a very lively pace, he took 8—41 in 25 overs. This was a game of individual performances, as Coutts scored a fine 113 out of a total of 151 for L.N.Z.C.C.

Reports and Results

CRICKET

GUY'S v. LONDON HOSPITAL
Final, Inter-Hospitals Cup

At H.O.P.

Mon., Tues., Wed., 13th, 14th, 15th July

Result: lost by 7 wickets

Normally the Final is played on a neutral ground but as no other Hospital ground was available it was decided by both sides to play at H.O.P. The London won the toss and elected to field, and from this point onwards Guy's never really looked like avoiding defeat apart from one brief spell in the second innings when Hambleton and Powell-Jackson were together.

The Guy's first innings started disastrously when the first two batsmen were back in the pavilion with only twelve runs on the board. The opposition soon felt well pleased with themselves when Hambleton was also dismissed for less than ten when he was given out, caught behind the wicket. The decision left many people in doubt as from square-leg it looked as though the ball had been struck on the bottom of the bat on to the ground. With five down for 27 runs, Davoodbhoy was sent in to hit Guy's out of trouble, as these runs had been scored in 75 minutes, and the bowling was completely in command.

The spectators were given two nasty shocks when Crafts played a ball firmly on to his wicket, which miraculously remained intact, and Davoodbhoy, from the next ball of the new over, struck the ball firmly to mid-off, who did not make the catch. Davoodbhoy then relieved the position temporarily with two mighty blows, which advanced the total by ten runs, but he was soon bowled, having added a valuable twenty runs. Crafts and Price then concentrated dourly and these two looked completely at ease, until an unaccountable lapse resulted in a chanceless stand of 48 being broken by Crafts being run out.

The London opening pair took the score to 74 without loss, both batsmen having offered chances with the score at 40 and 56. At the close, however, the scales swung into Guy's favour for the first time, when the next six wickets fell for only 39 runs. The London innings was terminated quickly at 169, when Price made two excellent catches from three deliveries by Knott.

On a good batting wicket the Guy's innings again started disastrously, with Huins being dismissed by a good delivery in the second over before lunch with the score only at three. When Hambleton and Powell-Jackson came together at 10—2 the London were again well on top, but these two gave no cause for alarm until Hambleton played all over a yorker from Smith, and Powell-Jackson was bowled off his pads making to hook outside his leg stump.

Knott and Price then decided that no London Hospital bowler was going to take another Guy's wicket for some time, and they battled for 85 minutes to put on 15 runs until Price was out to a good catch behind the wicket on the leg side. Walter then joined Knott and the scoring rate rose to the dizzy heights of nearly a run a minute. Walter, unfortunately, then had a rush of blood and gave a catch to cover, trying to strike the ball out of sight, to leave the London 83 to win in a little over a day.

These runs they made, and lost only three wickets. Huins bowled well and gave many people the thought of what might have happened with another eighty runs on the board.

NIGEL KNOTT

Guy's 1st Innings.

T. J. Huins, ct Cosgrove, b McPherson	7
H. W. MacGregor, ct Dunn, b Wilkinson (A.)	3
D. Silk, ct Smith, b Cosgrove	4
G. Hambleton, ct Burke, b Wilkinson (A.)	6
M. Appleby, ct McPherson, b McClure	4
J. Crafts, run out	39
S. Davoodbhoy, b McPherson	20
J. Powell-Jackson, ct Lawson, b Cosgrove	0
N. J. Knott (Capt.), st Wilkinson (M.), b Cosgrove	8
E. S. Price, b Wilkinson (A.)	23
M. Walter, not out	3
Extras	7
Total	124

London Hospital 1st Innings, 169.

(N. Knott, 11.5-2-30-2; M. Walter, 18-3-38-0; S. Davoodbhoy, 20-7-32-1; J. Crafts, 28-5-51-6; T. Huins, 8-4-10-1.)

Guy's 2nd Innings.

H. W. MacGregor, ct and b McPherson	6
T. J. Huins, ct Wilkinson (M.), b McPherson	0
J. Powell-Jackson, b Cosgrove	21
G. Hambleton, b Smith	34
M. Appleby, l.b.w. Cosgrove	1
J. Crafts, ct Wilkinson (M.), b McPherson	2
E. S. Price, ct Wilkinson (M.), b Smith	7
S. Davoodbhoy, ct Lawson, b Cosgrove	7
N. J. Knott, not out	23
M. Walter, ct Dunn, b McClure	14
Extras	12
Total	127

London Hospital 2nd Innings, 84—3.

(N. Knott, 11-3-31-1; M. Walter, 4-2-10-0; J. Crafts, 4-1-11-0; T. Huins, 7-2-8-2; S. Davoodbhoy, 3-0-9-0; M. Appleby, 1.4-1-5-0.)

GUY'S v. LONDON NEW ZEALAND

At H.O.P. July 19th, 1964

Result: won by 4 wickets

Guy's won the toss and put the opposition in to bat on a grassy wicket. Knott and Walter bowled with hostility, the former without much luck. Walter, however, soon found an edge and Davoodbhoy held the catch at slip. In his next over he took three wickets on alternate balls, and London New Zealand were in trouble at 14 for four. Wilkinson, borrowed from the London, then had a catch taken at slip with the score at 25. The opening bat Coutts, was still in, and he and Blue put on 56 before Walter bowled the latter with the last ball before lunch.

Walter was now bowling down the hill, and after lunch maintained his accuracy, speed, and hostility. Coutts progressed solidly against the other bowlers, and in an eighth wicket stand with Eade, scored 60 out of 70. He reached his century out of 130, hitting Walter for four to square-leg, after a tight duel between the two during his 90's. Walter's analysis finally read 24.4-9-41-8, a superb piece of bowling. Coutts was out for 113 out of the final total of 151 all out.

Guy's lost MacGregor at 11, and Knott, a make-shift opener of more enterprise than accomplishment, played some interesting shots before he was out at 28. Crafts and Hambleton batted comfortably, and the score moved steadily to 66, when the latter poked at one outside his off stump and was caught at the wicket. Appleby batted well, but was superbly caught; he pulled a short one hard off the meat of the bat, and silly mid-on successfully stuck up his left hand and held the catch. Crafts batted well, playing some aggressive leg-side shots. He was l.b.w. for 45. Biggs played some punishing strokes and was 33 not out when the visitors' score was passed. All in all an enjoyable day's cricket with Guy's taking advantage of good fortune.

GARRY HAMBLETON

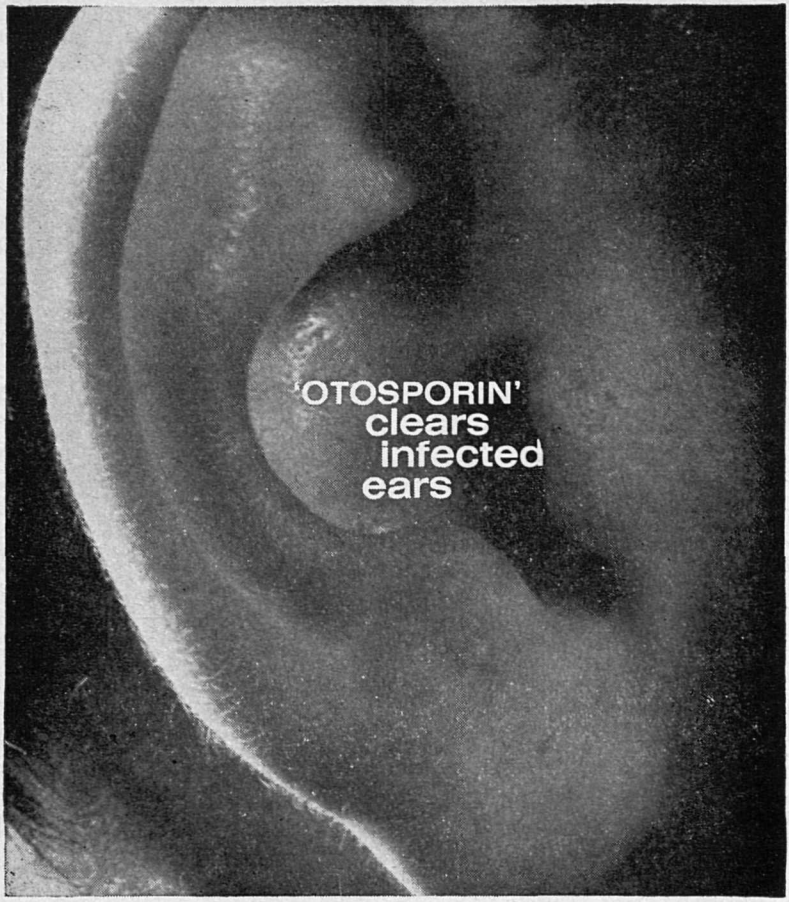
L.N.Z.C.C., 151. (P. Coutts, 113.) (M. Walter, 8—41.)

Guy's, 155-6. (J. Crafts, 45; D. Biggs, 33 not out.)

RIFLE CLUB

Staff Match

In excellent conditions the Annual Staff Match took place at Bisley recently. Dr. A. K. Mant, the President, was again in good form, making only one less than last year. The students produced some remarkable scores, but the staff, with the usual co-opted members, won by 10 points. The whole party then returned to Dr. Mant's home for drinks and a meal at a local hotel. A memorable day.



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Applications are invited for the post of **Senior Registrar in Psychological Medicine to the Board of Governors of Guy's Hospital and the South East Metropolitan Regional Hospital Board.** The appointment will be made jointly by the bodies concerned and will be for a period of four years, with duties in the first instance at Guy's Hospital and in the Bermondsey and Southwark Group and later in the Bexley Group. The post, which will be reviewed annually, is subject to the Terms and Conditions of Service of Hospital Medical and Dental Staff (England and Wales) with duties commencing on 1st October, 1964. Forms of application are obtaintable from, and should be returned to, the Superintendent, Guy's Hospital, S.E.1, not later than **31st July, 1964.**

GUY'S MAUDSLEY NEUROSURGICAL UNIT

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UNIVERSITY OF LONDON

Recognition of Teachers

M. A. Falconer as teacher of Neurosurgery at the Institute of Psychiatry.

P. H. Schurr as teacher of Neurosurgery at the Institute of Psychiatry.

J. S. Tomkinson as teacher of Obstetrics and Gynaecology at the Institute of Obstetrics and Gynaecology.

F. M. Sullivan as teacher of Pharmacology at Guy's Hospital Medical School.

PASS LIST

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Midwifery

T. F. W. Dilke* F. D. Higgs*

D. A. McCay*

*Have completed the examination

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BIRTHS

REYNOLDS.—On 25th June, 1964, in Eldoret, Kenya to Judy and Geoffrey Reynolds, a daughter, Elizabeth Alice, sister for Robert and Charles.

WALES.—On 9th June, 1964, to Rita and Roger Wales, a son, Martin John, a brother for Guy.

WELLER.—On June 15th, 1964, to Francine and Roy Weller, a daughter, Adrienne Louise.

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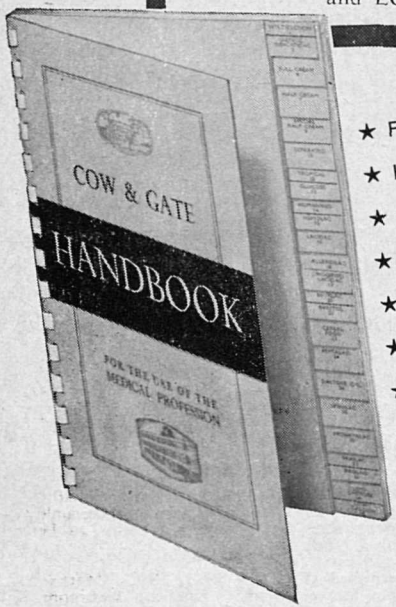

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GUY'S HOSPITAL GAZETTE

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8th August, 1964

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Editors *T. C. Davis*
B. H. Hicks

Sports Correspondent *N. J. Knott*

Guy's Hospital, London

PASSIM

Money, Bond or Barrier

A meeting of the Representative Body of the B.M.A. in Manchester, apart from deciding to desist from pressing the Ministry to stop prescription charges also thought it desirable to introduce a consulting fee in order to dissuade the public from seeking a doctor's opinion too readily, or perhaps to limit the frequency of visits of the persistent surgery attenders. The original intention of the N.H.S. was to remove all financial considerations from the realm of the surgery unless you wished expressedly to pay. Although this liberalized medicine hoped to treat everybody as equal it involved a loss of face on the part of the G.P. in particular, in that his services no longer had to be paid for but were there and free for the asking. Not only does the G.P. lose status but the self-indulgent members of the community can obviously use the situation to their benefit. Another outcome is that G.P. work becomes much less attractive to new graduates and the entry to practice does not cover the need, so imposing a further strain of overwork on those already there. The reaction of the assembled G.P's. has been to ask for a reincorporation of the charge abolished in 1948. Seen in the light of the above it may well raise their status, reduce the number of consultations so that the work load is decreased and in the long run increase the number of entrants into this understaffed branch of medicine.

The imposition of a visiting fee would inevitably dissuade those people sufficiently poor or sufficiently miserly from visiting the doctor; but the aim must surely be to dissuade only the unnecessary or too frequent visits. If this system were to discourage necessary visits as well it becomes difficult to justify especially when the accent of the G.P. service is moving towards detective and preventive medicine.

If a profession which maintains that a special bond must exist between practitioner and client wants to raise barriers between certain sections of the population, then it must be considering such people as abnormal in some aspect of their behaviour. The recommended treatment, it seems, being to fine them.

Mr. J. B. Blaikley has just been elected Vice-President of the Royal College of Obstetricians and Gynaecologists. We congratulate him on his appointment. We also offer our congratulations to Mr. W. A. Crabbe on his appointment as Consultant Orthopaedic Surgeon to this hospital.

Nothing remained: Nothing the wanton name
That nightly I rehearsed till led away
To a dark sleep, or sleep that held one dream.

Thom Gunn.

Fifty years ago, on August 4th, the First World War began. A sobering thought. Probably some can remember and others read of its pointless killings, its gross, inhumane waste of manpower. It still claims victims to-day from lung neoplasia and bronchitis but man himself seems to have learned little from it all. The Second World War claimed dispute of borders as an antecedent and precipitating factor. Some lines of the young Russian poet Yevtushenko seem relevant and particularly vivid in this free translation by Hollo, a young Finn who lives in London:—

All these borders—
they
bug me! Nothing
do I know
of Buenos Aires, or
New York
—and I should
know! I should be able to go
to London
and walk around,
and talk to the people,
even if I can't talk so good,
just walking
around. Like a little kid
I want to ride a bus
through Paris
some morning,
and I want an art
that is something
else, is an exciting sound—
like myself!

Mr. Boquet Bull died recently at the age of 82. He was a Sub-Dean of the Dental School from 1920 until 1946, a long stint by anyone's standards, and was a dental surgeon to the Children's Department for 27 years. He had many friends to whom we extend our deepest sympathy. An obituary will appear in the next issue of the *Gazette*.

GUY'S DIARY

AUGUST

14th F. 5.00 Dr. H. K. A. VISSER, Senior Lecturer in Paediatrics, State University, Groningen, The Netherlands. Anatomy Theatre. *Congenital Enzymic Defects in the Biosynthesis of Aldosterone.*

OBITER DICTUM

Casualty Officer:

"I feel I could die."

Sister:

"Well, make sure you wait until I'm off duty."

BRONCHIAL CARCINOMA

A review of results and presentations

by R. H. F. Brain

Introduction

An appraisal of bronchial carcinoma to-day usually resolves itself into a discussion of three major problems.

1. Its steeply rising incidence. In 1940 there were 6,000 deaths reported, whereas in the last twenty years this figure has risen five-fold.

2. The control of known predisposing conditions of which the smoking of cigarettes and atmospheric pollution are the main ones. The only other recognised factor worthy of special mention is the presence of long-standing metal foreign bodies in the lung. Three such patients have been seen in the past five years, all relics of the 1914-1918 conflict. Similar results from the 1939-1945 war may be expected.

3. The "poor" overall results of our present-day methods of treatment.

It is my intention in this article to deal exclusively with the last of these problems. What I have to say can be conveniently considered under the following headings : —

A. A review of my personal facts and figures derived from patients seen and treated.

B. A brief look into the future based on modern trends and ideas.

C. A critical examination of A and B with a view to improving our present-day results.

A. Results of Therapy

My statistics are derived from the study of 681 patients seen during the ten-year period 1952-1962.

The treatment of patients with bronchial carcinoma presents many formidable problems to any doctor undertaking their care, not least of all to the surgeon.

In presenting my results I wish to point out straightaway that no two surgeons' results can be considered as exactly comparable. This statement is based firstly on the apparent variation of the background due to different family doctors and physicians, which affects not only the total incidence of the disease but also the type of case that is presented to him for opinion and/or surgery. Secondly, surgeons vary greatly in their philosophy and their willingness to take risks. My background for many of the cases has been the Brighton and Lewes Group area where I have been fortunate in being allowed

to see the majority of patients suspected of having bronchial carcinomata. While my personal obiter dicta has led me to accept many cases for surgery of borderline operability where I have felt that a chance of a cure existed or where at least relief from distressing symptoms could be expected.

No attempt is made to differentiate between the results of the various types of resection, such as lobectomy or pneumonectomy, as they are incomparable and therefore any judgment made between them is unrealistic. No Thoracic Surgeon removes a lung when a lobectomy is obviously consistent with a proper cancer operation. The routine mediastinal block dissection of lymphatic glands is a feature of all operations.

These statements go some way towards explaining both Table I and Table II. The former shows a very high percentage (35.6) of initially inoperable patients and the latter a further 24% deterioration of apparently operable cases when first seen and who are found to be inoperable on admission to hospital. The high operability rate, the resection rates (four out of five) and the high proportion of "palliative" operations to "curative" can be seen. A curative operation is defined as the removal of a growth localised to the lung. Patients with secondary spread to glands are included in this group provided that they are still contained within the lung hilum. Palliative resections include operations in the presence of secondary mediastinal glands and/or direct spread into mediastinal or chest wall structures.

Mortality figures are given in Table III where the effect of the more extensive palliative procedures on the poorer risk patients can be seen. The very low mortality (1.8%) for the "curative" type is a feature of this series.

The results of surgery can be seen in Table IV as assessed by the number of patients that have survived five years or more. A glance at the analysis of this table dispels complacency, although it can fairly be pointed out that the figures are crude, unmodified and include operative mortality. Various legitimate statistical corrections would improve them a little.

TABLE I

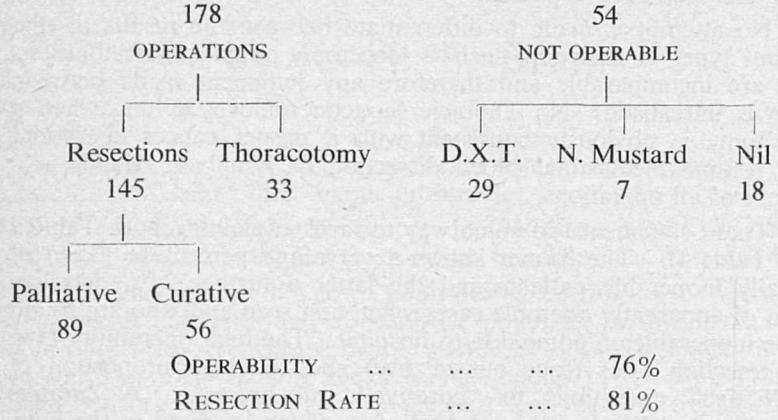
CARCINOMA BRONCHUS

TOTAL NUMBER OF CASES AVAILABLE FOR STUDY	
(Guy's Hospital 1952—1962)	681
Inoperable when first seen	243—or 35.6%
Admitted to hospital	438
AVAILABLE FOR 5-YEAR + STUDY	
(1952—1957)	232

TABLE II

TREATMENT

(232 Patients with Bronchial Carcinoma)



OPERABILITY 76%

RESECTION RATE 81%

TABLE III

MORTALITY OF SURGERY

(Deaths within 1 month)

	No. of Patients	Deaths	Mortality %
TOTAL OPERATIONS— 178		13	7.3
"PALLIATIVE" operations	89	12	13.4
"CURATIVE" operations	55	1	1.8

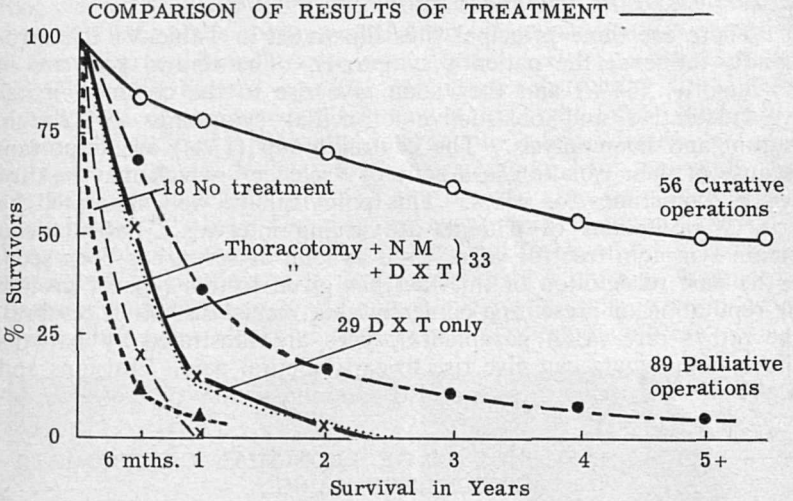
A comparison of the results of the various treatments utilised in this series of patients can be seen in Table V. Features to be noted in the graph are the high mortality during the first two years with little decline afterwards, the fact that a small percentage (5.7) of the palliative operations survive, and the poor results of all other forms of therapy. At the same time in fairness to other methods of treatment it must be pointed out that this does not mean that they are not extremely useful. Irradiation for bronchial carcinoma while not curing patients, frequently provides valuable palliation, for example, from pain due to metastases, while its use always gives to both the patient and the relatives that important psychological "hope of survival" without which doctors could not manage.

TABLE IV

RESULTS OF SURGERY 1952—1957)

NUMBER OF PATIENTS ALIVE AT 5 YEARS AND OVER	32
Representing—	
Of ALL patients seen	10.5%
Admitted to hospital	13.3%
Submitted to operation	18.0%
Resected	22.5%
"Curative" type of operation	50.0%

TABLE V



B. *Into the future*

So much for the immediate past and present. What can we offer our patients with bronchial carcinoma in the future?

Theoretically, no surgeon believes that Cancer "therapy" is likely to remain in his province. It is probable that the control or the reversal of cell malignant mutation in the future will lie in the hands of Biochemists, Cytologists, Geneticists and Micro-Biologists, or perhaps with other disciplines hitherto unnamed. Philosophically one may believe that ultimate control is impossible, or even unwise, as it is a natural part of the ageing process. However, all this does not relieve those in clinical medicine to-day from the responsibility of studying the past and present methods and searching to make improvements in our future management, whether or not we regard surgery as likely to continue in a major role.

C. *Examination of A and B*

Whatever our views on future therapy, obviously efforts to prevent bronchial cancer by controlling tobacco smoking and atmospheric pollution must continue, as should public education in its early symptoms. In the latter connection it must be admitted that to keep the lay person intelligently informed and co-operative, without making him a hypochondriac, is very difficult. Finally, to us in the medical profession, the fact that 50% of patients in this and other series with an operable type of growth are curable should act as a prime incentive to the making of earlier diagnoses. For this reason the remainder of this paper is devoted to this end, emphasis being placed on the various ways in which patients with early bronchial carcinomata may present themselves to the clinician.

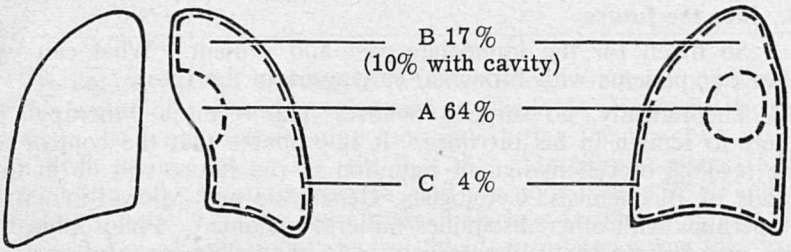
Clinical Presentation of Bronchial Carcinoma

There are four principal reasons why the diagnosis of lung cancer may be difficult.

1. *Because of the anatomical "siting" of the growth.*

There are three principal sites illustrated in Table VI that profoundly influence the patient's symptoms. The central type are in the majority (64%) and they soon give rise to the common irritative, ulcerative and obstructive bronchial symptoms of cough, sputum and haemoptysis. The central group (17%) are important because of their isolation in a zone of "silence" which may last for months, sometimes for years. This point can be well illustrated by serial X-ray plates of patients at varying intervals. Patients can remain symptom free for years, even as long as seven has been seen. In the past recognition of this fact has given to this type of growth the reputation of presenting clinically as a metastasis, often cerebral. The rather rare (4%) parapleural types are illustrated by patients whose carcinomata can give rise to early pleural pain. Effusions and local chest wall tenderness are also common in this type of case.

ANATOMICAL DISTRIBUTION OF BRONCHIAL CARCINOMATA WITHIN THE LUNG



A CENTRAL Bronchial obstructive symptoms

B INTERMEDIATE Circular parenchymatous opacity

C PERIPHERAL Parapleural type

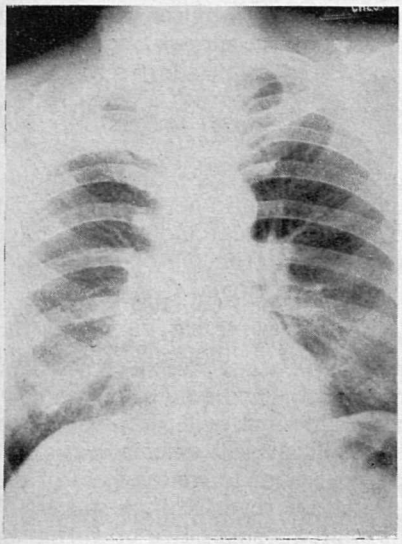
TABLE VI

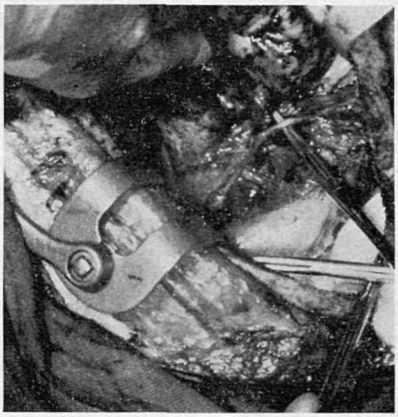
2. *Because of the "background" symptoms.*

The greatest stumbling block here for the clinician is the "smoker's cough" and long standing "bronchitis". The almost imperceptible worsening of these symptoms due to a carcinoma are often very difficult to recognise.

3. *Because of the association with "inflammatory complications".*

The occurrence of such acute and sub-acute inflammatory lesions as pneumonia, pneumonitis, pleurisy or even empyemata, due to bronchial carcinomata are common. Frequently they are the first real sign of trouble and unfortunately are too often amenable to chemotherapy, to the immediate joy of both patient and doctor to be changed to chagrin sometimes many months later. These facts are well illustrated by two male patients. The first had complete collapse of his left lung as a result of infection superimposed upon a carcinoma of his main bronchus. A course of antibiotics completely restored the patient and his X-ray to normal. Similarly, the second patient presented with cough, temperature and pleural pain in his right chest, that cleared within a week with antibiotics. His symptoms returned a month later when subsegmental bronchial occlusion was proven by a bronchogram, bronchoscopy was normal. The specimen removed by lobectomy showed a small carcinoma obstructing the anterior subsegment of the anterior segment of his right upper lobe. Both these patients had apparently returned to normal health and were difficult to persuade to have an operation. In the same way the incomplete clearing of an X-ray opacity after an apparent pure "inflammatory" lung illness is an even more common finding in bronchial carcinomata. Such patients tend to become labelled as an unresolved pneumonia, a virus pneumonia or a chronic pneumonitis. Patients such as these should always receive an exhaustive investigation within a few weeks of making one of these diagnoses.





Left : *X-ray of chest in the presence of typical voice changes due to paralysis of left vocal cord via recurrent laryngeal nerve.*

Right : *The operative findings in this case.*

4. *Because of "unusual" presentation.*

Approximately 10% of the total number of patients with bronchial carcinoma present with symptoms of an odd or bizarre type that may be difficult to interpret. The following are representative of this group, all have been seen in this series: —

(i) *Pyrexia of unknown origin and/or a very long history.* Both these features were encountered in a patient who was treated for malaria for over five years because of his previous history and associations. His X-rays remained unchanged throughout this long illness. Despite the duration of this patient's symptoms, he was successfully cured by pneumonectomy.

(ii) *Obscure chest pain.* In this connection the recognition of *pulmonary visceral pain* is important. Such pain is not severe, and is usually felt in the midline of the chest anteriorly or just to either side of it, exaggeration by coughing and exercise is common. Frequently its presence is only detectable by direct questioning. *Continuous pleural pain* is often misdiagnosed as myalgia or pleurodynia of unknown origin, while *referred chest wall pain* to the shoulders, the back and the abdomen may be difficult to separate from the dyspepsias. Any form of upper *abdominal pain* calls for a routine straight chest film. It is worth remembering that flatulence causing dyspepsia is a completely non-specific symptom that may be brought on by any lower chest or upper abdominal discomfort that results in the almost reflex swallowing of air by the patient in the misguided attempt to relieve their pain.

Cardiac arrythmias, particularly atrial fibrillation in patients without an obvious cause should all be suspected of having bronchial carcinomata. Personal observations suggest that such arrythmias are more likely to be related to age and malnutrition than to the actual invasion of the heart or the pericardium by growth, so that they are not necessarily a contra-indication to surgery.

Vasomotor disturbances of the "Raynaud" type of sudden onset in two elderly patients in the series were attributable to bronchial carcinomata.

Skin changes of the rare Acanthosis Nigra type are commonly associated with lung growths. While symptomatic herpes zoster and rashes due to allergic sensitivity to circulating carcinoma cells have been seen. Two patients with pigmentation from chronic arsenical poisoning were found to have bronchial carcinomas.

Spontaneous deep vein thrombosis suggesting carcinoma, as the well-known Trousseau's sign, has been seen to indicate a bronchial growth.

Hepatomegaly, often with upper abdominal pain alone as a sign of bronchial carcinoma is rare, but its overall association is not uncommon due either to obvious secondaries or to enlargement of the liver from fatty infiltration, the latter may be reversed by a successful resection. Such unusual signs and symptoms suggestive of *hormonal*

dysfunction as breast hypertrophy, testicular atrophy and others to be mentioned below were found in some patients with bronchial carcinomata, often in association with hepatomegaly. The fact that enlargement can occur apart from metastases has meant that a liver biopsy has often been an essential pre-operative investigation.

Endocrine disorders may be associated with any type of carcinoma, but undoubtedly this phenomenon is seen most often with lung growths. Apart from those already referred to above, the profound asthenia to be seen in some patients with bronchial carcinoma associated with low serum sodium levels, hypokalaemic alkalosis and high serum steroid levels is perhaps the most interesting. Sodium infusions to these patients leads within minutes to a most dramatic recovery of their mien. This condition has to be separated from the more obvious secondary Addison's type disease due to malignant metastases in the suprarenals.

The associated "opathies" have comprised one of the most interesting groups of important pathological entities associated with bronchial carcinomas. The incidence of these "opathies" of which the commonest was *osteo-arthropathy* totalled 8% in this series. In all but one instance the osteo-arthrophy patients have had accompanying finger clubbing. Nose clubbing was seen once, along with the usual painful swollen joints, tender long bones, and oedema seen in all of them. The limbs below the elbows and knees were primarily affected. The complete resolution of the symptoms and some of the signs of this disorder occurred within hours of a successful resection, although others, notably the osteopathy, often took months to disappear. All but one of the patients seen with this complication were operable, in the exception, a division of the vagi in the neck was unsuccessful in abolishing either the signs or the symptoms.

Both *neuropathies*, of the peripheral neuritic or cerebellar ataxic types, and *myopathies*, simulating myasthenia gravis, were seen. It is of interest to compare the incidence of the neuropathies (1—2%) with that of cerebral metastasis (5%). The neuropathies and myopathies, unlike osteo-arthropathy were irreversible by surgery, although a temporary arrest of progress has been seen.

So far my "unusual" presentations of bronchial carcinoma have all been associated with the potentially "operable" types of the disease. Signs and symptoms associated with patients of doubtful operability are included on the grounds of their importance to the assessing clinician, although they can scarcely be entitled to be called "unusual" in view of their numbers.

Pleural effusions have not necessarily meant inoperability since apart from pleural secondaries they may follow atelectasis, pulmonary venous and lymphatic obstruction and secondary lung infections. Nevertheless, the gravity of their presence is indicated by the fact that 17% of the inoperable group in the series had effusions.

Recurrent Nerve palsy represented by the onset of hoarseness in patients may be a first symptom and 9% of patients in the inoperable

group were so affected. As this phenomenon always represents a degree of mediastinal invasion, such patients were rarely operable. Nevertheless they are not all hopeless and a successful resection of patients with this complication is sometimes possible.

Sympathetic chain invasion usually can be diagnosed only when the stellate ganglion is involved, and it invariably means inoperability because of serious chest wall invasion in a situation where a wide excision is impossible. Two patients in the 243 found to be primarily inoperable had Horner's syndromes due to this complication.

Phrenic nerve palsy suggested by a high paradoxically moving diaphragm is a less disturbing complication since the nerve having a long intra-thoracic course is particularly vulnerable to direct carcinomatous infiltration. On several occasions it has been possible at operation to excise such a localised lesion widely.

Superior vena caval obstruction represents serious mediastinal invasion and a poor prognosis, but is not necessarily unresectable. Two patients in the series whose superior vena cavae after resection of the lung were replaced by homografts had full return of normal function. Incomplete invasion of the superior vena cava needing a partial resection of its wall was seen and dealt with successfully on several occasions. Surprisingly, only ten patients with this complication in the original 243 inoperable group were turned down ab initio.

Finally among important rarities seen in patients with lung growths are *normal X-ray pictures* and *multiple primary growths*. The latter have been seen at least once in each year of the series and have been classified into the unilateral, the bilateral, the synchronous or the asynchronous types. A second primary growth has been seen as long as ten years after the initial resection, most commonly they are separated by months. Several have been treated successfully by double resections. Illustrating this type are two patients, the first with bilateral synchronous upper lobe carcinomata, and the second also with bilateral carcinomata separated by an interval of nine months. This second patient has remained well over a period of three years after two resections with an interval of three months between them.

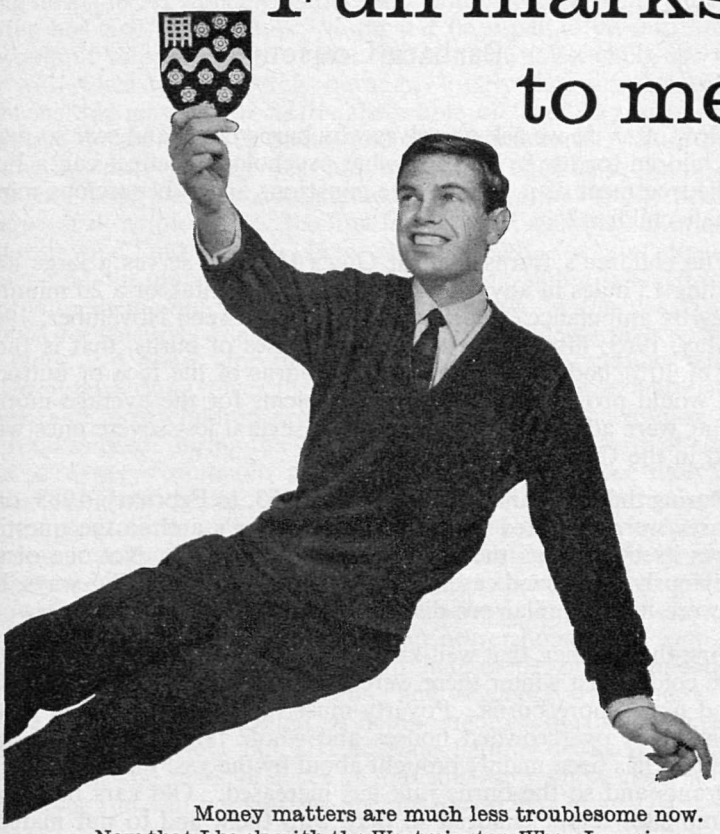
In conclusion an effort has been made to show that bronchial carcinomata may present a number of disguises that one has to learn to recognise. Given an operable type of patient, the surgical results are good.

NOTICE

Guy's Hospital Nurses' League

The Nurses' League have allocated a sum of money to allow three members who are not incorporated within the present Nursing Staff and also three members of the current Staff to attend the Congress of the International Council of Nurses in Frankfurt in June, 1965. Applications to the Matron by August 19th.

Full marks to me!



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THE BURNED CHILD

by

Barbara Cousen

How often do we ask ourselves why burns occur and scar so many little children for life? Further, what psychological effect can a burn and the treatment of it have on the conscious and subconscious minds of small children?

The children's Burns Unit at Guy's Hospital serves a large area extending 15 miles in any direction from the hospital, or a 20 minutes' journey by ambulance. During the months between November, 1962, and May, 1963, fifty of the more severe cases of burns, that is those burns of 10% body surface or over, or burns of the face or buttocks which would prove difficult nursing problems for the average mother at home, were admitted to the ward, and several less severe ones were treated in the Casualty Department.

During the ten years from February, 1953, to February, 1963, only 420 cases were admitted in that period to Guy's and so the question prompts itself why has there been such an increase? Not one of the 50 previously mentioned cases were caused in exactly similar ways, but there were many similar pre-disposing factors.

First the weather, that well-known English talking point; due to the intense cold of last winter there were many more heating appliances in use and many more burns. Poverty must surely be a common factor with so many overcrowded houses and whole families living in one room. This has been mainly brought about by the vast influx of foreign immigrants and so the burns rate has increased. Old cars being left on bomb sites tempt children to play with them and to put matches in the petrol tanks; inadequate fire guards is another example of adult negligence. Parents out working leave young children by themselves or in the care of an older teenage child or an elderly relative and rarely think of the consequences of the mischief that the children can get up to. Maybe this can be tied up in conjunction with the higher cost of living indicating that both parents have to go out to work to provide fare enough for the children. Many appliances are acquired by the Hire Purchase, and so often the cheapest are bought and these are often the least safe. Many parents are careless about faulty electrical equipment and far too many appliances are connected to the one main plug.

Which sort of child is the most prone to burns or accidents? Research indicates that it is the already disturbed child in an unhappy home environment. For example, separation from brothers and sisters, divorced parents or just a misunderstood, unloved and unwanted child are factors associated with the incidence of burns in children.

Is Emergency Ward 10 on television all that good for children to watch? It does give the wrong impression to some extent by glamourising hospitals. I wonder in how many houses young Willie has looked at the box and said " Look, Mum, it'd be super to go into hospital, I wouldn't mind it a bit ". But this is not what a child has to put up with when he is severely burned. Firstly they are isolated in a cubicle; this may be for nearly the whole of their stay in hospital if they are nursed exposed before and after operations. As all parents know, this proves rather wearying for a child once he is feeling better and they soon become discontented. Intravenous fluids become a source of discomfort after the first few days along with i-m injections, sedation and antibiotics. It is all very well for the doctors to order and the nurses to give them, but it is Willie who is actually receiving them, not just daily, but six hourly in the case of antibiotics to sensitive organisms. Doctors and students take specimens of blood 2-4 hourly for the first three days and sedations are also given by injection. Over the months this adds up to numerous injections; and most children are afraid of needles. Iscarectomy in the bath takes place during the second or third week. In spite of sedation this is a very traumatic procedure which takes place daily, so if Willie is old enough he has 24 hours in which to think and ruminate on the next time. This procedure may also be performed under general anaesthetic. He may go to the operating theatre for the first time for skin grafting. The horrors of the theatre are magnified by knowing it to be the first of many operations. It is little consolation to be told that each one will bring him nearer home. He soon learns that there are two ways of having an anaesthetic, one by injection, as if he hadn't had enough already, and secondly by using a mask. There is that terrible feeling of being engulfed by the darkness and sinking into oblivion, but all the time fighting to keep awake and hoping that the mass of faces in the mist will know that he is not asleep yet and will not start to operate too soon.

Post-operatively, in spite of nausea due to the smell of dried blood, pus and serous fluid, he has to eat the right foods or otherwise he will be given tubes to swallow. Grafts do not always take and so the operation may be repeated.

Then comes the day when he is eventually moved out of the cubicle to mix with the other children. Can anyone say what effect this hospitalisation has on a child's mind or what can we do to help?

Isolation

Constant nursing care can be provided for the more severe burns, a special nurse day and night so that if he wakes up during the night there is someone to reassure and comfort him. One must reduce the amount of injections as much as and as soon as possible, oral sedation and oral antibiotics should be given wherever possible.

How grateful we are to the friends who give us television sets and radios to help keep these children amused. In spite of all this,

nothing can take the place of parents' visits; this is so essential in burns cases. All parents should be encouraged to visit every day for as long as possible, and if they have other commitments which make it difficult, help should be given to enable them to visit regularly. It has been shown that in certain cases parents are invaluable to the progress of their child by helping with baths, by being there both before and after operations, and of course by giving their love and assurance.

Members of all spheres in the medical profession forget the old saying " little pigs have big ears"; how true for children, not only do they overhear what is said, but they may not understand it and may worry about the small things that they do understand and get everything out of perspective. Remember that the child is a human being who can and must be told certain things about himself. This applies even if he is lying with burns on his face and his eyes closed with oedema, for he can still hear and should be spoken to as soon as anyone goes into his room.

Eventually comes the wonderful day of discharge and afterwards away to a convalescent home. How difficult it is for a child to realise it is for his own good. Sometimes all he can think of is that his parents do not want him at home. You can never tell a child that something that distresses him, either in or out of hospital, is for his own good.

What happens when a child eventually goes home, scarred and disfigured as many cases are? Back to school with his friends; children can be so cruel and spiteful towards one another, but occasionally they can be understanding. There are articles demonstrating that children often have considerable psychological disturbances resulting from isolation and their eventual rehabilitation. How long does it persist through their lives and what difference does it make to them as people? I don't know exactly, but the following are a few cases that have impressed me and from which I have learned much, from the burned children I have nursed.

The little girl who was burned on a Tuesday and in hospital had numerous tests, investigations and operations, which all happened to fall on a Tuesday. When asked when she would like to go home, said "Not Tuesday! I hate and dread Tuesdays".

One little boy who had an artificial limb was terribly frightened about what his pals would say to him. He knew the rude, ugly things that they had called out to a man they saw wearing one when on their way to school.

The stupid father who told his daughter who was burnt from her hips downwards that she would never again lead a normal life. The thoughts and worries that girl had. The guilt complex that prevails on parents and children alike and the attitude of parents towards each other blaming and punishing themselves can often lead to broken marriages.

Finally the little girl who after five months of lying prone with burns on her back and limbs and who on discharge from hospital was just beginning to take a few short steps again but was unable to walk properly. Months later she ran down the ward to greet me so thrilled with life telling me how now she could jump and skip again. Only the other week she came to tell me how she had started ballet classes and would bring and show me her ballet shoes the next time she came. These are the things one remembers, but how I wish I could answer that question, how and why do burns occur? In exasperation I realize that 99% of all cases I have nursed could have been avoided. Cars should not be left abandoned as playthings for children. Adequate guards for fires must be provided and children must wear non-inflammable clothes. Teapots and saucepans should not be left within easy reach of the adventurous toddler. These are just a few of the many precautions parents with small children must take. They would reap dividends.

REVIEWS

THE CHEMISTRY OF DEATH,

by W. E. D. Evans, Charles C. Thomas, U.S.A. First Edition, 1963. Pp. 101. *Price* 38*s*.

The American Series in "Living Chemistry", already carrying more than a dozen authoritative contributions, has, with this slim volume, collected together some of the many writings on the physiological and biochemical changes of the process of dying. Evans has himself shown much interest in the long-since dead and knows how to express himself lucidly, so the choice of author carried promise. It is not fulfilled. There are vast gaps in the coverage—the whole problem of cooling, fibrinolysins, work on the chemistry of the vitreous—and very thin treatment of others like perinatal bacteriology. Most irritating, perhaps, of all defects, the author and subject index of references is not tied up with the text. This small monograph is for the expert and Evans could have done much better—very much better indeed, in the view of one of his colleagues who knows his capabilities.

C. K. SIMPSON.

CRIME OUT OF HAND,

by Kenneth Ullgett, J.P., Michael Joseph, London. 1963. Pp. 200. *Price* 25*s*.

In view of the status of forensic medicine at Guy's, many readers of the *Gazette* will be interested in this book. Its acknowledgements include Professor Keith Simpson, Dr. Keith Mant, and Mr. Nils Eckhoff.

The book is a frank statement on crime and criminals, and may well "startle, shock, and possibly offend", as the author states. The methods of criminals and their detectors are set out in most modern detail. Such topics as statistics, records, Identi-kit, forensic medicine, blood grouping, investigation of murder and rape, safe-breaking, explosives, ballistics, motivation, and so on are covered in a most readable and obviously well-informed manner.

The author's aim seems to be to shock the smugly law-abiding out of their insouciance and to arouse apprehension in the potential criminal. If the book were read by every person in the country above the age of puberty, its aims might well be in part achieved. You are therefore exhorted to do your bit—and you will enjoy it!

R. WARWICK.

What Every Parson Ought To Know

This is the vulgar English for what is officially called A Pastoral Clinical Training Course for Theological Students. Six men from Anglican Colleges in England, Wales and Scotland have lately spent a month at Guy's finding out what goes on in a teaching hospital and learning something about sick people and the opportunities and difficulties of those who minister to them in so many ways. The course was limited to six because it was thought valuable to have the students living in College along with the House Officers, and it is encouraging to report that when it was over both hosts and guests said they wished there had been time to see more of each other.

Under the Chaplain's direction the students submitted to a strenuous programme consisting of a daily Eucharist and Offices in chapel, talks and discussions, clinics and ward rounds, case conferences, a night on the wards, visits to the theatres, the dental school, the animal house, the PM room and so on. Altogether we were addressed and/or entertained with characteristic generosity by the Superintendent and 16 consultants, the Matron and 12 sisters, the Clerk and 10 other senior officers of the hospital, and as few clergymen as possible. Typical topics were the mechanics of maternity, the responsibilities of a House Officer, contending with parents, the deaf, malignant disease, venereal disease, epilepsy, and at the York Clinic the various manifestations of mental illness.

Perhaps we attempted too much. At the end the students said that they would have liked another fortnight and more time on the wards. The Sisters were hospitable and the patients were agreeably surprised to find that the theologians were not medical students out for their blood. On Sundays they conducted Ward Services to everybody's satisfaction. Altogether it was an enjoyable, instructive and stimulating time and they went off with many expressions of gratitude to all the people who had welcomed them so generously.

A.J.M.S.

NOTICES

Guy's Hospital Biennial Dinner

To be held at the Connaught Rooms, Great Queen Street, Kingsway, London, W.C.2, on Friday, 2nd October, 1964, at 7.0 for 7.30 p.m. The Chairman will be E. G. Slesinger, Esq., O.B.E., B.Sc., M.S., F.R.C.S. The Biennial Dinner affords the most popular opportunity for old Guy's men and women—medicals and dentals—to meet together and renew the friendships of their student days.

The Hon. Secretary will be grateful if Guy's men and women who intend to be present will apply for tickets (£1 15s. 0d.) as soon as possible to the Hon. Secretary, Biennial Dinner, Guy's Hospital, S.E.1. (Telephone HOP. 7600, Extensions 341 and 342).

Guy's Hospital Ladies' Association Flower Service

The Ladies' Association is most urgently in need of help in connection with the above Service. Would any lady who can spare one morning a fortnight (from 9.45 a.m. to about 12.15 p.m.) to arrange the patients' flowers in the wards, kindly contact Mrs. Cooper, 34, Shepherd's Hill, N.6 (MOU. 9070).

Pubs of Guy's

The Miller

Perhaps it is unjustifiable but nevertheless the public equates the study of medicine with an ability to consume stupendous amounts of liquor

The destruction of the Ship and Shovel during the war meant that The Miller, at the other end of Great Maze Pond, became Guy's pub, something akin to "The King George" of "Doctor in the House". It is a purely functional public house, and the only accessories to the main purpose of drinking are a television and a large mirror on which has been painted a mythological stork plucking fish from an ethereal looking pond. It is here that examination success or failure is paid for in pints of Whitbread bitter which are doomed to stand in superfluity on all available tables and ledges, it's the same after rugby matches when tired bodies toast all that is toastable, and more. The hours and the pints slip by in tuneful abandon.

Reg is a rotund, clean-shaven man of 58 whose mood always reflects that of his customers. He took over from Reggie Miller in 1955. He is a Somerset man who, after working in hotels in Bath, came to London where he worked in bars. He has managed many pubs in areas from Soho to Woolwich, but he has found most happiness in Bermondsey. As a stalwart supporter of the Rugby Club, he was elected President of the Tankards in 1957. Guy's men share The Miller with dockers and leather workers and a very satisfactory three-course lunch, together with a good buffet attracts lean, spit-discouraged students, even cheques are cashed if the impecunious are well known. Many a diagnosis has been unearthed in this bit of England 'twixt Porter's Shop (now moved) and Salamon's Centre.

The Miller is soon to be replaced by more distinguished premises nearby, but it is a pity to leave the old building, for it must hold hallowed memories for everyone. Who could forget the night on which the Hospitals Cup success was celebrated? Although it will be a long time before the new building gains the atmosphere belonging to a Guy's pub, it will be able to offer amenities deserving of such a large student population which a self-contained, hospital maintained bar cannot provide.

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SPORT

CRICKET

Soon after a new world record had been made at the Oval for the highest number of victims claimed by a wicket-keeper, the versatile Baker accompanied the Guy's side to Thornton Heath and decided that he would show the world that the Hospital have an unheralded record-breaking 'keeper. He succeeded in making three stumpings and two catches, which until the past *Gazettes* are consulted would appear to be a record-breaking performance.

A somewhat depleted side succeeded in bowling out Thornton Heath for a meagre 141, which seemed at the time to be a very reasonable effort. Appleby showed that the Guy's third line of attack is decidedly useful when he successfully deceived the opposition to take 6—37. However, the higher order batsmen failed miserably, and it was left to the "occasionals", Biggs, Morris, and Edgar, to show the rest of the side how a bat should be used. Unfortunately they soon ran out of luck and Guy's were dismissed for 122, to suffer their fifth defeat of the season.

Reports and Results

CRICKET

GUY'S v. THORNTON HEATH

At Thornton Heath. 22nd July, 1964.
Result: lost by 19 runs

The Hospital took rather a depleted side to Thornton Heath, being without Knott, Walter, Hambleton, Davoodbhoy, Price, and Crafts. The day was fine and the wicket sound. Thornton Heath opened the batting, and Elias and Biggs met with early success, having three wickets down with only thirty runs on the board. The home side soon settled down, and although Huins bowled tightly, the total slowly mounted. A short boundary accelerated the scoring, and at lunch Thornton Heath were 98 for 3. After the break, however, wickets came more quickly. Huins drew their leading scorer forward, beat the bat, and had him stumped. Then, Appleby found some help in the pitch and bowled the next two batsmen—one ball pitching outside the leg stump and removing the offside bail. Two catches, by Baker and MacGregor, gave Appleby his third and fourth victims, and the same bowler facilitated two stumpings with his deceptive flight. Thus, with more than four hours remaining, Guy's were set to score 142 to win. Appleby finished with an analysis of 6 for 37 in eleven overs.

Facing this not unreasonable total, Guy's started badly. MacGregor was bowled by the second ball of the innings which came more slowly at him, and shortly afterwards Powell-Jackson was leg before for two. Huins and Silk looked settled and were playing some attractive strokes, when they, too, capitulated cheaply. Appleby and Reekie seemed to have the resolution to stem the collapse, but before their totals reached double figures, they both succumbed to the same opening bowlers, thus the score before tea stood at 28 for 6. Biggs and Morris then came together at the wicket and with a mixture of hard hitting, stout defence, and a small measure of good fortune, took the total to 79 before Morris was bowled for 24. Biggs was caught in the deep for 28, but Edgar carried on the attack with an attractive 23 to take the total to 115 for 9. Baker played out the remaining overs at his usual pace, but a last wicket stand was not forthcoming, and the Hospital were all out for 122.

IAN BAKER

Team: D. Silk, H. MacGregor, J. Powell-Jackson, T. Huins, M. Appleby, I. Reekie, A. Morris, D. Biggs, A. Edgar, I. Baker, E. Elias.

Thornton Heath, 141. (M. Appleby, 6—37.)
Guy's, 122.

ROWING

The races for the Gurrey Cup were held over a half-mile course on the 14th June, at Chiswick. Of a field of four, the winner was the captain, Soutar, and D. H. Gurrey presented the Cup.

Rowing has now finished for this year, and the Boat Club rests on its oars until October. Although commencing this year with only four competent oarsmen, the 1st VIII managed to go up in the Putney Head of The River by nine places, and both the 1st and 2nd VIII's rose one place in the United Hospitals Bumps, so that the 1st VIII now lies fourth. These successes are undoubtedly due to the enthusiastic coaching of D. H. Gurrey, and to the quite exceptional keenness amongst the members of the Club.

SWIMMING & WATER POLO

RETROSPECT 1963-64

The club has had the best season that is on record; it is indeed a long time since Guy's so completely eclipsed the other colleges and hospitals in the swimming pool.

U.H. SWIMMING CHAMPIONSHIPS.

Because of the postponement of the 1962-63 championships, we had both the 62-63 and 63-64 sessions in the last year. The inclusion of the Welsh Swimming captain, R. Jones, in the team gave us more than a fine individual swimmer. We have now a team spirit second to none which is taking the club from strength to strength.

Results

1962-63	1963-64
Guy's, 59 pts.	Guy's, 39 pts.
St. Mary's, 45 pts.	St. Mary's, 28 pts.
Bart's, 39 pts.	London, 15 pts.

U.L.U. SWIMMING CHAMPIONSHIPS.

Guy's won at U.L.U., and for the first time in many years the cup did not go back to Imperial College. This was fine team effort in which each member gave an excellent performance.

Result
Guy's, 42 pts.
I.C., 30 pts.
Northampton C., 26 pts.

National Provincial

The Guys Hospital Office, which is opened for your especial use, is under the management of Mr. W. C. Frankum, Southwark Branch, 12-14 Southwark Street, London S.E.1, and enquiries will be welcomed.

LADIES SWIMMING

A very pleasant surprise this season has been the effort produced by the ladies' team, whose results have been an unexpected delight.

U.H. 1962-63
1st, London
2nd, Guy's
U.H. 1963-64
1st, London
2nd, Guy's
U.L.U. 1963-64
1st, Goldsmiths
2nd, Guy's

As with the men's events, this has been due to a concerted team effort, but mention should be made of Janet Higgs, whose diving this year has been superlative. The training time that Janet devotes to attain this standard should be a lesson to us all.

Guy's have at last found the form that has eluded them for the past four years. Our successes have been interspersed with failures to a far lesser degree than was previously so.

U.H. LEAGUE

Our Praed Street rivals suffered at our hands for the first time since 1959. Guy's first team won Division I, dropping only a single point in the competition—a notable achievement.

Result

	W.	D.	L.	F.	A.	Pts.
Guy's I ..	9	1	0	77	20	19
St. Mary's I ..	8	0	2	46	15	16
London I ..	5	1	4	47	32	11

Not to be outdone, the second team made sure of pushing St. Mary's II into third place in the second division. However, neither team could contain the new-found strength of the young St. George's side, which won this division without dropping a point.

U.L. LEAGUE

We gingerly entered the University competition, because we felt that the larger pool might suit us. Our success surprised even us, however. Had our attack functioned slightly better we could well have taken the title, as it was we had to be content with joint second place.

Result. U.L.U. League Div. I.

	W.	D.	L.	Pts.
I.C.	11	1	0	23
N.C.L.	5	3	2	13
Guy's	5	3	2	13

It would appear that we have yet to find the temperament to compete successfully in knock-out competitions. That this is due to the handicap regulations and the time-wasting practices adopted by the more fortunate sides is undoubtedly true. Be that as it may, we have been knocked out alarmingly early in both U.L.U. and U.H. competitions.

In conclusion, one should consider the club's prospects. We have been successful, we are capable of being even more successful. We have acquired facilities unavailable two years ago, and more and more people are making use of them. We are a young side, whose experience is growing fast. Developing as we are, Guy's should have many more successful seasons.

DERRICK BARNES
BRIAN VALENTINE

HOSPITAL INFORMATION

APPOINTMENTS VACANT

GUY'S HOSPITAL, S.E.1.

Applications are invited for two vacancies for **middle-grade Registrar in the Ear, Nose and Throat Department,** commencing on 1st October, 1964, with appointment for one year in the first instance. Forms of application are obtainable from, and should be returned to, the Superintendent not later than **29th August, 1964.**

GUY'S HOSPITAL MEDICAL SCHOOL

Applications are invited for the post of **Junior Lecturer or Lecturer in the Department of Anatomy,** with duties commencing on 1st October, 1964. Salary in the range £1,350 to £1,690 (Junior (Assistant) Lecturer), or £1,805 to £2,505 (Lecturer), according to qualifications and experience, plus £60 London Allowance, with superannuation and family allowance if applicable. Application forms are available from, and should be returned to, the Dean, Guy's Hospital Medical School, London Bridge, S.E.1, not later than **31st August, 1964.**

AWARDS

GUY'S HOSPITAL DENTAL SCHOOL

Prize Examinations

Examination for the Newland Pedley Medal and Prize for Operative Dentistry July, 1964

Certificate to M. S. Jones

David Frank Sturdee Prize July, 1964

First Prize to J. D. W. Barnard
Second Prize to M. R. Setchell

Second Year Prize Examination

First Prize to R. H. Salt
Second Prize to M. J. James

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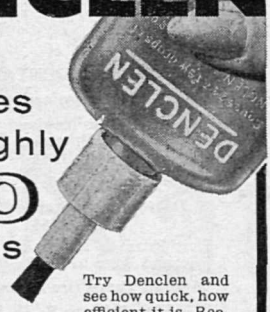

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EXAMINING BOARD IN ENGLAND

Final L.R.C.P., M.R.C.S., July, 1964

Pathology

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Jennifer A. Chown
T. C. Davis
A. L. W. Eddleston
Carol G. E. Gladstone
A. J. Hazzard
T. M. Jenkinson
H. Munitz
D. J. O' Gorman
J. C. Robertson
Patricia V. Rountree
Christina M. Wotherspoon

Medicine

I. A. Baker
P. J. C. Baxter
S. Bhanji
Jennifer A. Blyth
J. G. Cochrane
P. D. Davies
A. L. W. Eddleston
L. D. Edwards
D. N. Evans
G. P. Falconer
C. G. C. Gaches
R. Gilkes
Carol G. E. Gladstone
A. J. Hazzard
C. W. Howell
M. J. Hoyle
J. M. I. Iveson
T. M. Jenkinson
C. D. G. Johnson
A. Kuczynski
L. Levinsky
Christina J. S. Lawrie
B. J. Mason
A. W. J. Medhurst
G. J. D. Moore
D. J. O'Gorman
A. N. Mowbray
Suzanne E. E. Peet
Jennifer P. Pearse
Jennifer M. Pietroni
R. A. Y. Pietroni
T. H. Redpath
A. M. Roberts
Sophie Robertson
Patricia V. Rountree
P. J. Rowe
P. Sheridan
P. C. Smith
A. Stevens
I. A. Sutherland
M. M. Walker
M. Walter
Christina M. Wotherspoon
Rowena C. Yates

Surgery

H. A. Armstrong*
J. T. St. J. Brown*
D. E. Evans
P. Garcia-Webb-Sharp
T. J. Huins*
T. B. W. Johnson*
P. A. Kitchener*
T. N. Jones*
G. Llewellyn
I. C. Maclennan
Sarah A. Marshall*
C. J. Padfield*
R. J. Siggers
R. D. Sinclair*
B. J. B. Taylor
R. P. D. Toone
C. P. W. Warren*

Midwifery

M. B. Barnett
Jennifer A. Blyth
R. F. C. Boger
H. Cannell
Jennifer A. Chown
P. D. Davies
D. N. Evans
C. G. C. Gaches
P. Garcia-Webb-Sharp
Carol G. E. Gladstone
B. H. Hicks
C. W. Howell
T. J. Huins*
J. M. I. Iveson
Christina J. S. Lawrie
M. F. Lewis
A. W. J. Medhurst
M. W. J. Older
Suzanne E. E. Peet
Elizabeth A. Pepper*
Jennifer P. Pearse
A. M. Roberts
P. B. Robinson
P. J. Rowe
A. Stevens
R. A. Sturge
M. Walter
Carol M. E. Williams
Dawn G. G. Woodruff
Rowena C. Yates

* Have completed the examination

FINAL STATE EXAMINATION FOR NURSES

The following nurses have passed the Examination held in June, 1964:—

Abbott, A. (née Brammar)
Anscombe, W. M.
Ashton, J.
Bailey, L.
Balmer, M. E.
Beaton, E. A.
Beaver, J. C. (née Taylor)
Beckwith, P.
Beuret, V. J.
Boneham, S. M.
Brigham, D. M.
Bucknell, B.
Burfield, V. A.
Burke, U. A.
Chapman, E. S.
Cooper, A.
Coyle, D. R.
Craig, E. J.
Davies, L. C.
Dawes, P. A.
De Waele, J. L.
Donelan, P. B.
Durrant, C. A.
Dutton, P. W.
Edmonds, M. J.
Edwards, S. J.
Evans, S. M.
Farris, A. J.
Foxon, C. M.
Gale, A. M.
Gordon-Gray, V. M.
Gosnay, L. P.
Groombridge, C. A.
Haigh, J. E.
Harper, P. J.
Harris, C. A.
Harvey, G. M.
Hawkes, P. E.
Hines, M. A.
Hooker, B.
Hudson, S. W.
Hunt, J. M.
Hurd, E. M.
Ibbotson, S. M.
Jones, M. E.
Kermode, J. F.
King, D. L. (née Howard)
Lane, S. M. T.
Lasbury, A.
Lepper, G. J.
Lloyd, J. F.
Lowth, U.
Maclay, J.
Malpas, E. A.
Manning, M. P.
Mountford, M. A.
Mycock, K. M.
Neath, J. M.
Odgers, M.
Page, M. Z.
Pearman, E. V.
Pickett, J. A.
Pockson, G. F
Pullen, J. A.
Richards, M. A.
Rigby, C.
Roberts, H. A.
Rorrison, I. J.
Rout, E. J.
Rowley, F. E. J.
Sadler, J. A.
Salisbury, S. M.
Scott, J. M.
Sheffield, G.
Simpson, G. M. M.
Stafford-Clark, P. J. C.
Standing, E. M.
Storey, E. J.
Tandy, M.
Tarr, J.
Tear, E. E.
Thomas, G.
Thomas, M. C.
Thomas, R. C.
Thomson, M. J.
Timmis, E. C.
Topps, M. E
Traylen, L. A.
Turner, C
Wagstaff, J. A.
Warburton, I. R.
Watkins, V. J.
Weeks, S. K
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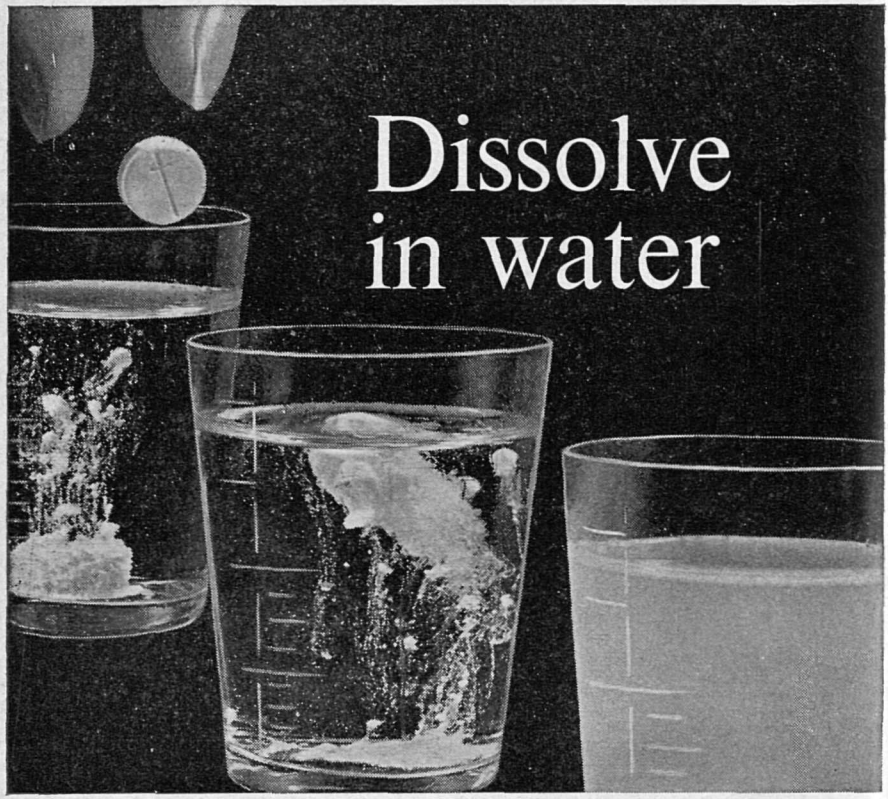

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Editors *T. C. Davis*
B. H. Hicks

Sports Correspondent *N. J. Knott*

Guy's Hospital, London

PASSIM

Mr. Grant Massie died only a few days ago. He was so respected, admired and loved by Guy's people that it is hard to realize this fact. It seems such a short time ago that he was walking through the Park of the hospital to which he gave so much. His surgery and his teaching of the subject were an example and inspiration to students. His dealings with his patients brought to mind a centuries-old remark that "love is the foundation of all medicine". Grant Massie proved this true. We extend our deepest sympathy to his relatives and friends. An obituary will appear in the next issue of the *Gazette.*

Hippocrasy

When so much fuss is made about the degree of specialisation in medicine to-day, and concern expressed as to its effect on the student, it comes as something of a surprise to find the Hippocratic Oath including a vow for the honourable physician :

> "I will not use the knife, not even on sufferers from stone, but will withdraw in favour of such men as are engaged in this work."

Of course, things were very different then, but the Greeks had already risen to the heights of trenched sewers, stone latrines, and public health officers (paid more than 300 in the first 500, too, Mr. Barber!). But the surgeon is a far more recent innovation, and those early Greek philosopher-physicians were not to foresee his rise to respectability, even less the emergence of the modern specialist. Yet specialisation, with all its oft-enumerated dangers, displacing a little of the humanity for much increase in accuracy, has been a vital element in medical progress. In the several articles about their development, to appear in this and future *Gazettes*, we hope to exploit their particular characters in painting some interesting views of the oddly chequered history of medicine.

Ik heb hoofdpijn

By courtesy of a Californian hospital, we have just received a copy of a newly-published "communicator and translator", a sort of phrase book for hospital travellers. With its twelve languages this book may well prove invaluable in those embarrassing moments of lingual impasse. By the time the patient has communicated "molio bih da mi neko rastumaci tablu nad mojim krevetom"—please have someone explain this bedside panel to me (Croatian)—it might be quicker to simply ask for a glass of water. But in Tagalog even that is "gusto ko'ng isa'ng baso'ng tubig"! *(And where is Tagalog anyway?)* There are no prizes for the first correct answer received, even with appropriate packet-tops, as to the interpretation of "gusto ko'ng purga".

"Those carvings were the most disgusting things I've ever seen in my life," said 38-year-old Mr. Edward Scott to the Ministry of Health, a hospital spokesman, and the *Daily Mirror.* The precious panels of the residents' bar "done in some anatomical detail" were

threatened (by Mr. Scott) with "an investigation". Generations quaked. Panels warped in fear. *Phallustine!* He (Mr. Scott) stayed long enough to note, "There were disgusting captions, too." Any more revelations like this and mighty heads might blush, we think!

Another honour has come to the Dental School in the appointment of Dr. W. J. Tulley as Professor of Orthodontics. We would also like to congratulate Miss Pamela Ordish on her appointment as Consultant Anæsthetist at Warwick and wonder whether this is the first time a Guy's woman graduate has attained full status in a major speciality. A Guy's man will fill another chair in the person of Dr. S. M. Hilton, who has been appointed recently to the Bowman Chair of Physiology at Birmingham University.

Mr. Clarkson's new title is Surgeon in charge of the Accident and Emergency Service and Plastic Surgeon to the Accident Service.

F. BOCQUET BULL

F.D.S., M.R.C.S., D. ORTH.

Those who have read the Life and Letters of William Cowper, the 18th century poet, will remember that one of his intimate friends was a Congregational Minister, the Rev. William Bull, whom Cowper addressed as Carissime Taurorum, the dearest of Bulls. Bocquet Bull was the great, great grandson of this man. He was also descended from a Huguenot family from whom come his praenomen of Bocquet. Bull's father was also a Congregational Minister who died in middle life, the result being that Bull worked as a clerk in the offices of the Royal Society for eight years. This gave him a training in the handling of memoranda and documents of different kinds, which proved of great value to him during the many years that he occupied an administrative post at Guy's. After completing the three years' private pupilage to a dental practitioner, which was then the normal course, he entered Guy's as a medical and dental student, obtaining his L.D.S. in 1909 and the Conjoint diplomas in 1914. He became a dental house-surgeon and in 1913 succeeded Dr. Harold Chapman in the charge of the Orthodontic Department, becoming an Assistant Dental Surgeon in 1919. He was a Past-President of the British Society for the Study of Orthodontia. In 1913 Bull was appointed as Resident Dental Officer, the first purely administrative office created in the Dental School at Guy's In this position he was so successful that he was appointed as the first Dental Sub-Dean and held this position until his retirement from active duty.

Bull was a man of very genial and friendly disposition; with Montagu Hopson and Sir Frank Pearce he founded the dinners which have been so valuable in furthering the close friendship which has always existed among the members of the Dental Staff. As an administrator he was careful and exact, handling the affairs of the Dental School with common sense and due conservatism. He was always accessible, both to his colleagues and to the students. He leaves behind him affectionate memories among his many friends.

The Development of Forensic Medicine

Keith Simpson, M.A.

The distinguished physician Richard Mead, who was executor to Thomas Guy, founder of the Hospital in 1720, wrote in the Preface to *A Mechanical Account of Poisons*, published in 1702:—

> "It is very evident that all other Methods of improving Medicine have been found Ineffectual by the Stand it has been at these Three or Four Thousand Years; and that since of late Mathematicians have set Themselves to the Study of It, Men do already begin to talk so Intelligibly and Comprehensibly, even about abstruse Matters, that it may be hoped in a short Time, Those who are Designed for this Profession are early, while their Minds and Bodies are Patient of Labour and Toil, Initiated in the Knowledge of Numbers and Geometry, that Mathematical Learning will be the Distinguishing Mark of a Physician from Quack; and that He who wants this necessary Qualification will be as Ridiculous as One without Greek or Latin."

This had followed closely upon a very similar plea from John Quincy in 1700 in his Physico-Medicum, where, carried away a little, perhaps, by his special knowledge of the "Laws of Motion, Gravitation, Air winds, Tides, Light, Heat, Cold and the Like" he warned that "Points of Practice, without such previous Lights, must be entirely in confusion, and upon the Hazard of Experiment and guesswork".

This was late in the development of processes of Law, for Judges had since the mid-12th Century been going about on circuit, on the authority of Henry II, to deal with crimes and generally dispense justice. They had only the decisions of their forebears to guide them, but this was *case law* as we know it today, and gradually some consistency developed, giving birth to a *Common Law* of England. "Crowners" or Coroners had also come into being at about the same time, and one might have thought that calls for the dispensation of justice in crimes of murder by violence and poisoning would have demanded the services of apothecary, barber surgeon and scientist. But over 500 years was to elapse before Medicine and Science awoke to the service they might contribute to the Law.

Early Times

When we look at the processes of Criminal Law in early times we can but be appalled at their insecurity as a foundation for justice. Even literate civilizations like those of Egypt, Sumeria, Babylon, of India and China, lacked scientific aids of any kind. Anatomy was evidently studied—both the Edwin Smith papyrus and that of Ebers give evidence of a knowledge of medicine and of surgery. Imhotep,

Chief Justice and Physician to King Zoser in 3,000 B.C., might perhaps lay claim to be the first medico-legal expert, but this reputation rested on empiricism and irrational deduction: poisons and antidotes were known—and used, but there was no means of detecting or measuring them except by the coarse biological assay of trial. Pliny tells us that the bodies of those who died were examined, but the records do not tell us much of the results. Disputes over virginity, problems of marriage, legitimacy, rape, embalming and the disposal of the dead occupied much of the time of the experts of the day, and the decisions that were made were—with the exception of the science of embalming—anything but scientific.

Neither the Roman nor the Byzantine era contributed much to medicine or science. In A.D. 19 Germanicus' death was attributed by one side to poisoning, by the other to natural heart disease—both on the grounds that the heart did not burn! As Sir Sydney Smith has pointed out, the Justinian enactments, on reflection, look almost as if they were intended to be a lasting memorial to the fading greatness of Rome. Worse was, of course, to follow. The scientific lights of Europe went out for centuries—extinguished, not a few aver, by the teaching of Galen. Some light which appeared in the East—a work entitled *Hsi Yuan Lu* (reviewed in 1924 by Prof. H. A. Giles in the *Proceedings of the Royal Society of Medicine, Section on the History of Medicine*)—remained out of reach of European medico-legists. It would have been of tremendous value to those shouldering the responsibility of the investigation of crime during the Middle Ages, for it dealt (and dealt well) with such problems as the study and interpretation of wounds as a check on the validity of statements, the differentiation of suicidal and homicidal strangulation, immersion of the dead—as distinct from the living, ante- and post-mortem burning, and many other everyday puzzles which are now approached on much the same fundamental principles, if now aided by blood and tissue analysis and microscopy.

A *Constitutio Criminalis Carolina* proclaimed by Charles V, extending the well-known Bamberger Code in 1533, was the first European law to insist on expert medical testimony before the judge in cases of murder, wounding, poisoning, hanging, drowning, infanticide and abortion. This root flourished and rapidly spread to France, Austria and Italy. An Italian physician, Fortunato Fideli, wrote a 4-volume medico-legal magnum opus in 1602—*De Relationibus Medicorum,* and Paul Zacchia, physician to the Pope, followed (between the years 1621 and 1635) with his remarkable *Questiones Medico-Legales.* In France, Ambroise Pare and Louis; in Denmark, Bartholin (who first introduced a hydrostatic test for new-born lung); in Germany, Plenck and Metzger; and in England Samuel Farr all made important literary contributions to the subject. The 18th century closed with one of the greatest contributions of all time—the *Traite de Medecine Legale et Hygiene Publique* of Fodere—which formed the link between the older empirical and the modern scientific

approach to problems of crime investigation. The microscope had made its impact.

The First Scientific Era

It was undoubtedly the 16th and 17th century development of the lens and from it the microscope that broke the empirical shackles of the centuries. Malpighi, Hooke, Swammerdam, de Graaf and von Leeuwenhoek poured discovery after discovery into the field of microscopic anatomy in the worlds of biology, medicine and science.

Coroners and Law Enforcement Officers had, until this period of early scientific development, had recourse to the anatomist and such medical men as were interested in dissecting the body for evidence of disease or to elucidate injury. Chemistry was in its infancy and toxicology concerned itself with symptomatology and dosage—and sometimes antidotes, but not with the analysis of organs. Bohn, in Leipzig, published in 1689 the first comprehensive treatise from a mid-European expert—*De Officio Medici Duplici, Clinici Nimirum ac Forensis* and a *Corpus Juris Medico-Legale* by Valentini in 1722 at last ousted the out-dated Zacchia in Italy. In France Louis' *Memoires,* dated 1788, was succeeded in 1796 by Fodere's classic *Traite de Medicine Legale et Hygiene Publique.* In England Samuel Farr (1788), Andrew Duncan (1789), Smith (1821), Christison (1829), Paris and Fonblanque (1823) and the famous Alfred Swaine Taylor (*Poisons* in 1848), whose original *Principles and Practice of Medical Jurisprudence* (1865) I now have the honour to edit with Sir Sydney Smith, all of these sustained British interest in the developments of scientific crime investigation.

Early Criminal Detection Procedure

Although for so many centuries the need for an investigation of all violent and unexpected deaths must have been evident to everybody, law enforcement made remarkably little use of experts in the growing fields of either medicine or science. The *Constitutio Criminalis Carolina* of the mid-16th century was the first European enactment to authorise the services (and, where necessary, the evidence at enquiry) of experts in the field, and this was not, of course, binding on the English Coroner, who had by then existed for over 500 years. The Normans had levied a 46 mark fine called a *murdrum* on any district in which an unexplained death had taken place—unless Englishry were proved: the English were expendable. The *deodand* or object responsible for the killing in cases of felony was forfeit, and for centuries the "crowners", as they were then called, profited not a little by this means. The investigation of such deaths must have required some skill and experience for a fair decision to be reached, and one might have expected "crowners" to seek professional advice on the interpretation of the findings in the dead. They did not. All too little attention was paid to the evidence that medicine and developing science might have extracted at autopsy. Cases were decided on the circumstantial evidence and the interpretation of wounds: surface marks were all that counted and much nonsense (often frank quackery) was talked and recorded. Little or nothing was known of the many

natural diseases which are now so often shown at autopsy to be capable of arousing suspicion of foul play. Two famous trials which took place as late as 1678 (that of three men for the murder of Sir Edmundbury Godfrey) and 1699 (that of Spencer Cowper for the murder of the girl Sarah Stout), produced much conjectural and imaginative evidence which would certainly not withstand present-day cross-examination. The infamous Titus Oates gave evidence at the first of these, and this is hardly likely to have added much to the justice of the occasion.

Another difficulty was placed in the way of coroners using the services of experts: they had no authority until 1836 to pay fees for such help, but had to seek a magistrate's authority for expenses incurred in this way. Of course the system failed, for magistrates and coroners viewed each other's authority and privileges with dislike and did all that was possible to frustrate each other. Ultimately, by *6 and 7 Will. IV c. 86,* this difficulty was disposed of. In 1845 the old Bills of Mortality, first kept by the parish priest on an order of Cromwell in 1538, were replaced by the English death certificate, and a real interest in the accuracy of the stated cause of death began to develop.

Nineteenth Century Technical Advances

Nicol's development in 1828 of the calcite prism for crystallography, now replaced by a synthetic polaroid, opened up a new field for microscopy, and the development of studies in diffraction phenomena also extended the power of the microscope, but it was still shackled by the limit to which ordinary light sources could increase resolution. Abbe's partnership with Zeiss from 1873 on, the dispersal of chromatic aberrations and the development of the oil-immersion lens, undoubtedly paved the way for the remarkable later 19th century discoveries of Virchow in cellular pathology, of Pasteur and Koch in bacteriology, and of Eberth and Laveran. The slow progress of clinical medicine, even in the hands of such brilliant men as Astley Cooper, Bright, Addison and Hodgkin, to name four in just one London Hospital, stemmed from the lack of instruments such as these. Successively, polarizing, dark-ground, diffraction and finally Zernicke phase contrast methods of resolution, defined detail that laid discovery after discovery before the eye.

The invention of the flame photometer by Bunsen and Kirchhoff in 1859 set off another most productive field—that of spectrum analysis. Fraunhofer's viewing telescope with a mirrored scale provided the ideal complement. Haemoglobin in blood became easily detectable from other red matter and its crystalline compounds added detail to "blood tests" of the day. Emission spectrography was not yet due or the police search for trace contacts might have had an early start.

Criminal investigation did not make strides commensurate with these advances. For the vast majority of microscopical examinations that were and even now are made in the fields of dactylography,

ballistics, the biology of hair cuticle and structure, even of the dusts from turn-ups of suspect house-breakers and safe-pickers, do not require this degree of resolution. Only in the field of cell-sexing by nuclear structure, elaborated by Barr and his colleagues during the past 10 years, has mitochondrial form been in demand. The simple sexing of blood from white cell nuclear form described in 1954 by Davidson could have closed one of the major gaps in scientific crime investigation over 50 years before. Crippen's victim could have been sexed beyond argument in an hour.

During this same *fin de siecle* period, another remarkable "instrument" in crime detection—the finger print—came to the notice of the police. It was an English development, and I should like to devote some short time to its history.

Purkinje (the Breslau physiologist) had, in 1823, submitted a thesis entitled *Commentatio de Examine Physiologicae Organi Visus et Systematis Cutanei,* naming nine types of finger print. Whether he had seen Thomas Bewick's "mark" as a wood engraver's signature (most beautifully executed, for instance, in the illustrations to an Aesop's *Fables* in 1818), we do not know. There was no doubt, of course, that finger and thumb impression had been used centuries before in both China and India as trading signatures: in the Assyrian Room of the British Museum are many bricks so marked, the archeologists studying this period frequently find ball prints on pottery. An interesting document still lies in the Cathedral of St. Columb in Londonderry. It is dated 1691 and demands to see "the King and Parliament" to ask for compensation for losses during the siege of Derry. To it are affixed both signatures and finger and thumb prints—presumably as marks for any who could not write.

But Purkinje seems to have been the first to attempt any systematic description of finger prints in his 1823 thesis—and it was forgotten, or at least its forensic possibilities were not extended. No one foresaw the immense service these common marks were to give to criminal investigation, until William Herschel and Francis Galton, some 50 years later, interested themselves in its astronomical pattern potential —and its immutability. It remained for Henry, an English civil servant who had seen this signature in India during Government service there, to envisage its possibilities in police work. In 1900, he presented his arguments to a Departmental Committee appointed under the chairmanship of Lord Belper, and in this he was ably supported by Galton. Henry was, in fact, able to quote a conviction for murder in Bengal which had relied on the finger print for proof of identity—and was followed by a confession. The system was adopted by the English Police and a Department was set up at New Scotland Yard, where Sir Edward Henry shortly became Commissioner. He had already paid dutiful compliment in his first major work on the subject, published in 1895, to the pioneer work of Herschel "in employing finger prints as an official signature nearly 40 years ago".

The system has been an unqualified success, and has never been successfully challenged in criminal procedure in court. I happened

to have been engaged in the first case in which a palm print secured a conviction for murder—in a safebreaking killing at Shoreditch in the early 1940's; and in another remarkable case, the Luton sack murder, where an old and dusty print on a pickle jar was vital to the Crown's proof of identity in a charge of murder, the unquestionable accuracy of this system carried the prosecution.

Modern Developments

The rapid growth of scientific knowledge in the 30's and 40's made it clear that the somewhat haphazard use of university teachers, industrial research workers and of self-styled experts for casual consultation in biological, blood and other serological problems, in hair, dust and fibre identification, in chemistry and toxicology and forensic ballistics was unsatisfactory. The day of the Roche Lynchs, Ainsworth Mitchells, Ryffels and Churchills, consultants all of great merit, was fading. Crime fighting needed trained science officers of the Crown with the resources of expert laboratory staff constantly at their elbow. Pathologists soon established their claim to displace "any registered medical practitioner" in the performance of medico-legal autopsies, micro-analysts replaced the clinical chemist, forensic serologists the haematologist. On the police side the far-sighted Lord Trenchard, who had established a trial Forensic Science Laboratory at Hendon in 1934, soon engineered a network of laboratories to provide a countrywide service. Policemen equipped with helmet receivers were more literally on the beat of the pulse of crime: every man had a mobile laboratory team at his elbow. Results brought increasing collaboration and the science laboratory staff found themselves under increasing pressure: their dispassionate court reports, seldom indeed offering room for defence manoeuvre, brought a growing repute.

"Libraries" of firearms, ballistic data, papers, minerals, dusts, woods and fibres, plastics, glass, paints, explosives and drugs grew and immediate scientific assistance now lies within reach of every forensic pathologist and C.I.D. officer.

From the physicist came developments in spectroscopy—until then limited to absorption methods—and in X-ray, ultra violet, and infra-red photography notably in gem and art forgery detection. The quartz spectrogram established itself for jemmy, paint and bullet traces. From the chemist came the revolution in analytical techniques that flame photometry started, and paper chromatography, spectrophotometry, X-ray diffraction and now gas chromatography have developed—a far cry from the old Stas-Otto extraction, evaporation and crystallography or biological assay, routine only 20 years ago.

In biological fields the chief progress has been in blood grouping serology. Sexing by Barr or Davidson data have solved in hours questions that took days and much pondering among experts in the time of Crippen, but sex differentiation seldom comes into court.

With blood it is another matter. Since Medea attempted to rejuvenate old Anchises by replacing his blood with that of two youths

(Ovid), interest has attached to the sex, species and personal specificity of blood. Pope Innocent VIII received the blood of three boys without immediate disaster, but much havoc came of the indiscriminate use of blood transfusion and it became evident that it had a complex personality. Karl Landsteiner lit on the solution in 1901 with his identification of the specific agglutinogens A and B—and Decastelo and Sturli of the rarer AB a year later. By 1927 M and N patterns had come to light, and in 1937, with Wiener, Landsteiner again made a great contribution by identifying the Rhesus types. Group specific substances quickly became identified in saliva (on a cigarette end), sweat (on a glove), and semen (in a prostitute victim), from secretor-types. It was becoming increasingly risky for a criminal to leave anything at the scene.

In the serological determination of species, the direct precipitation test has largely given way to the more specific and practical anti-globulin serum inhibition test—suitable for even tiny stains that can be left attached to the contact. In the determination of group-specificity, the first major advance came from the exploration of A-sub-groups, in Kell and the Rhesus complex. Now Smithies' development of paper electrophoretic identification of the haptoglobins has added a whole new chapter to the individuality of the blood: it is proving exceptionally useful, of course, in disputed paternity problems. The pattern of a blood, once just AB, rhesus negative, M or N, may now well be A_1, C D e/cde, N, S, Lu (a1), K+ and Hp2-1. This is no longer a task for the wide-spectrum clinical pathologist, and even the determined barrister may be hard put to defend comprehendingly. The soundness of the inheritance laws for blood groups first communicated by Bernstein in 1925 have not been challenged.

Empiricism in forensic pathology and science is indeed a thing of the past.

PHARMACOLOGY FOR NURSES

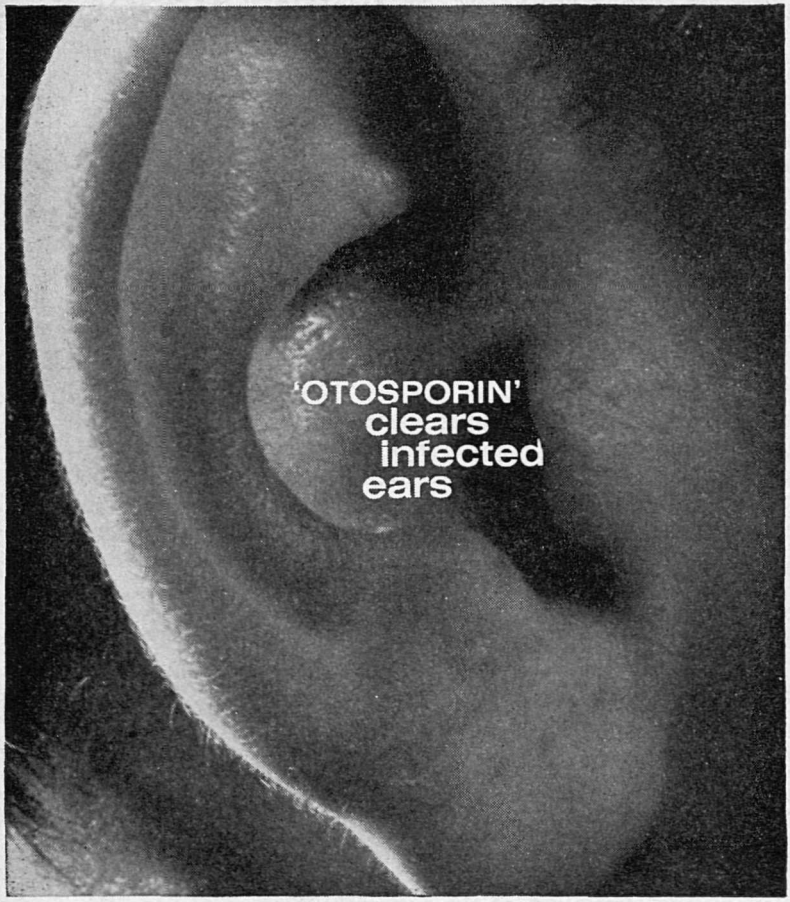
by J. R. Trounce. Churchill. 3rd Edition. 1964. Pp. 319.

This book sets out in concise form a working day knowledge of pharmacology for student nurses. It is primarily a reference book, and its ability to teach the nurse is dependent on her own prowess to digest the contents. This third edition includes a chapter on drugs used in psychiatry, which may prove very enlightening to those who have not yet had their psychiatric lectures. The passage on antacids is dealt with in a slightly "molecular" manner which I feel would be a little above many nurses who do not possess a basic understanding of chemistry.

Owing to the enormous increase in the range and number of drugs now in use, the chapter on "untoward reactions to drugs" is a worthwhile addition. It includes discussion of over-dosage, side-effects, hypersensitivity, idiosyncracy and, for example, the dangers following the administration early in pregnancy of certain drugs.

It may be said that this book, which has superceded other books of its kind, has been much improved and has brought the subject fully up to date for nurses. For those with a small knowledge of foxgloves I would recommend this book.

ROWENA PARKER.



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Occupational Health Services

J. A. D. Anderson

The dangers to life and limb associated with certain occupations have been acknowledged for centuries. Signs suggestive of diseases which are accepted as being industrial in origin can be identified in Egyptian mummies while Hippocrates[1] stressed the occupation of the patient in his description of certain sydromes. Legge [2] maintains, however, that Pliny the Roman (A.D. 23-79) was the first person to make any record of an attempt to prevent industrial disease. He observed the harmful effects of dust on workers and recommended the use of masks.

Credit for the first serious attempt to classify diseases according to occupations is usually given to Ramazzini, an Italian professor who worked in Modena and Padua. In 1700 he published a book[3] which was later translated into English with the title "On the Diseases of Artificers, which by their particular callings they are most liable to". Many different "Artificers" were credited with having special occupational hazards. They ranged from washer-women to midwives and from "cleaners of the jakes" to surgeons. After perusing this work the cynic would conclude that the only safe way to pass one's life was to remain unemployed.

It was over a century later that any legislation about industrial health was enacted in this country. The Health and Morals of Apprentices Act (1802) was a rather poor measure to try and protect pauper children who were being employed in the cotton industry. Out of these small beginnings however have grown the occupational health services of the present time.

There are two statutory ways in which doctors may be required to help in maintaining the health of industrial workers. The first is controlled by the legislation of the Factories Act, which, together with allied measures, is concerned with environmental factors in industry. The second important piece of legislation is the National Insurance (Industrial Injuries) Act which deals with insurance payments. The present-day successor to the original Act of 1802 is the Factories Act of 1937; this Act with its subsequent amendments goes a long way towards ensuring better working conditions and the reduction of environmental hazards such as dust and chemicals in places of work; more recently radio-active materials have also been the subject of protective legislation. At the present time regulations are coming into force controlling shops, offices, and railway premises which were specifically excluded from the older Acts.

Under the terms of the Factories Act the country is divided into 12 Administrative Divisions. Each of these is sub-divided into districts, and each has a staff of factory inspectors. Their task is to visit factories and other premises in order to make sure that the regulations contained in the Act are being observed. They have

similar status to food inspectors or sanitary inspectors in that they are experts in their own speciality but are not medically qualified.

In addition to the Staff of Inspectors there is a medical branch comprising 13 full-time officers under a Senior Medical Inspector and over 1,500 appointed factory doctors. The latter are appointed locally by one of the Chief Inspectors from among general practitioners who are interested in this type of work. In rare cases the Medical Officer of Health may be appointed and in those larger factories which employ their own medical advisers this doctor may be specially appointed to carry out statutory duties.

The Factories Act requires that routine inspections are made on all young people (under 18 years) working in factories. In addition, all people of any age who are handling potentially dangerous materials (lead, chromium, mercury, etc.) have to have regular examinations and tests.

The third statutory duty of an appointed factory doctor is to investigate death or injury resulting from the inhalation of noxious fumes in a factory. He also has to investigate the working conditions and other circumstances of men who have been reported to be suffering from certain industrial diseases.

TABLE 1.

	Number of cases notified in 1962
Epitheliomatous Ulceration	183
Chrome Ulceration	130
Lead Poisoning	80
Compressed Air Illness	14
Anthrax	9
Aniline Poisoning	7
Chronic Benzene Poisoning	3
Mercurial Poisoning	3
Arsenical Poisoning	1
Phosphorus Poisoning	1
Toxic Anaemia	1
Manganese Poisoning	—
Carbon bisulphide Poisoning	—
Toxic Jaundice	—

Source: Annual Report H.M. Chief Inspector of Factories, 1962

These diseases are listed in Table 1 and it is obligatory for all doctors to notify cases of these which occur in their practices. This notification is made to H.M. Chief Inspector of Factories and the figures given in Table 1 are the number of cases notified in 1962[4]. The total number of cases (432) is only a small proportion of the number of workers who are sick or injured in any year (there are some 8 million claims for National Insurance annually). Nevertheless, the notifiable industrial diseases are usually preventable and therefore any cases which do occur should be regarded as a reflection on the precautionary measures in force at the factory concerned. Periodically there are "epidemics" and cases of lead-poisoning which can be seen in the wards at Guy's from time to time serve as sharp reminders of the dangers of complacency among those working with hazardous materials.

Quite apart from the system of notification and investigation of the above diseases, there are other specified diseases for which workers can receive higher rates of National Insurance from the Welfare State. These higher rates are also paid to those who are injured at work. The incongruous position arises in which a worker who is unfit for work because of sciatica following a week-end of excessive gardening will receive a higher rate of insurance if he can convince his doctor that his disability is the result of a "slipped disc" incurred while lifting a heavy object at work. Similarly the niceties of distinguishing between eczema and industrial dermatitis can keep eminent members of both the medical and legal profession occupied and adequately reimbursed for many months.

The higher rate of insurance which applies to industrial injuries and illnesses is sometimes called "compensation" by the workers themselves. It is, however, quite distinct from any compensatory payment which may be awarded as damages following a civil action for negligence on the part of employers. Both have one thing in common, however, namely that delay in deciding the outcome may result in symptoms being aggravated or their duration being unduly protracted.

Besides the work which doctors may do as part of the statutory requirements of the Factories Act and the National Insurance (Industrial Injuries) Act, many doctors are employed privately by industrial concerns. Employment in this field is often referred to as working in the Industrial Health Service, but there is no comprehensive service as such. It is not part of the National Health Service and funds come from the industries themselves rather than from any government source. Norman [5] states that there are about 400 full-time industrial medical officers in Britain but probably another 3,000 general practitioners are employed part-time by one or more industries. These figures are not known accurately since there is no formal link with any government department. It seems likely that the Association of Industrial Medical Officers, formed in 1935, would have the most reliable information; membership of this association is voluntary, however, so that any figures quoted by the Association or from any other source can at best be regarded as well-informed estimates. Industrial medical officers have no statutory tasks unless they are acting as appointed factory doctors. They have, however, a wide range of functions which may vary according to the requirements of any particular industry.

The functions suggested by the Association of Industrial Medical Officers in 1956 [6] are as follows:—

1. To advise the management regarding:
   - (i) the hygiene of the working environment.
   - (ii) the general health of workers including trends in sickness absence.
   - (iii) the occurrence and risk of dangerous hazards.
   - (iv) accident prevention arrangements.
   - (v) new legislation and statutory requirements in connection with health safety and welfare.
   - (vi) Research; either domestic or in conjunction with such bodies as the M.R.C.

2. Examination of applicants for employment and advice to management on their selection and placement.
3. Immediate treatment of medical and surgical emergencies occurring at the place of employment.
4. Responsibility for the efficiency of nursing and first-aid personnel and equipment.
5. Examination of persons returning to work after illness or incapacity.
6. Continued observation of all persons returning to work after prolonged illness including those registered under the Disabled Persons (Employment) Act 1944.
7. Periodical examination of persons exposed to special hazards.
8. Continued observation of all young persons.
9. Advice on health and employment of older workers.
10. Encouragement of managers and superiors to advise their staff to obtain medical advice when any signs of ill health are observed.
11. Advice on the health of senior staff.
12. Ready accessibility to employees for medical advice upon matters relating to their work.
13. Medical supervision of canteens in order to ensure the cleanliness, good quality and physiological adequacy of the food.
14. Advice to Works Councils, Welfare Departments, Benevolent Fund Committees and similar bodies on any matter affecting the health of employees.
15. Arranging and carrying out Health Education Programmes.
16. Convalescent homes; advice on their administration and on the admission of cases.
17. Civil defence: advice about first-aid and arrangements for evacuation.

This list gives a fair indication of the wide interests to be found in the field of industrial medicine. It is expressed in general terms and should not be regarded as applying to any particular industry.

In carrying out these functions the doctor must remember that he has responsibilities both to the men and to the management; he must gain the confidence of both sides of industry and nowadays that confidence exists in most cases. Originally this was not so; many workers and their Unions thought that doctors would identify themselves with the bosses. Ideas of this nature have altered considerably during the past 30 years, however, because the medical officers themselves have shown clearly that they are completely impartial.

Quite apart from this relationship with the two sides of industry an industrial medical officer has to ensure that he maintains good relations with general practitioners and with local hospitals. In the tasks which have been listed the only mention of a therapeutic service is that concerned with first aid treatment of emergencies; it is in this field that difficulties can arise. Most large factories have some medical cover for emergencies and under such circumstances the industrial medical officer supervises first aid treatment and may refer the case direct to hospital. Even when the medical officer himself is not available to see the case there is usually an arrangement by which the nurse on duty can effect a direct admission. Whenever a mother is referred to hospital by either the medical officer or his nurse then the general practitioner concerned should be informed at once; this is a matter of common courtesy quite apart from avoiding misunderstandings.

At the end of an episode of sickness or injury the family doctor certifies that the patient is fit to return to work. If there is an industrial medical officer attached to the factory, however, he will be

asked to approve that the man is fit to return to his particular job. This may seem quite a reasonable idea in that the medical officer attached to the industry is likely to know more about the stresses and strains of a particular job than the family doctor. Be this as it may, the duplication of opinion which may ensue can lead to friction between general practitioners and industrial medical officers. The worker himself, bored and depressed by a period of enforced idleness, may act consciously or unconsciously as an efficient catalyst to an explosive reaction by playing one doctor off against the other. Misunderstandings of this kind are becoming much less frequent as a result of the increased knowledge and interest in the Industrial Health Service.

Many factories now run their own rehabilitation units under the direction of their own medical officer. Here again the co-operation and good-will of both general practitioners and hospital doctors is essential to secure success. One such unit at Vauxhall Motors is designed to take workers back to light employment in a sheltered environment as soon as possible. This scheme is so successful that workers themselves clamour to be allowed to return; this happy state of affairs has been achieved by close co-operation between the Hospital Service, the General Practitioners and the Industrial Medical Officer. Thompson[7] claims that the average period of sickness absence for such conditions as tenosynovitis and Pott's fracture has been reduced from six weeks or more to about one week.

There is great value in a quick return to the working routine. The injured person keeps up the momentum of his working life, thus avoiding the lethargy which is almost bound to accompany enforced illness. Workers who make an early return to a rehabilitation unit of the type described are given tasks which satisfy two important conditions. The first is that the physical action required in doing the job will be such as to hasten recovery; in this respect it should act as a form of occupational therapy. The second requirement is that the end product should contribute something to the output of the factory as a whole. Quite apart from satisfying the economic demands of the management there is considerable psychological benefit to the patient in knowing that he is doing a useful job.

Unfortunately it is only large factories which can afford to run such units on their own, and there are still over 200,000 factories with 25 employees or less on their payrolls. Disabled workers from such factories can be rehabilitated at one of the Industrial Rehabilitation Units (I.R.U.) run by the Ministry of Labour. These units are not attached to individual factories or groups of factories. It follows, therefore, that re-engagement after rehabilitation is not automatic and this creates problems which do not apply in the case of a large factory running its own unit; nevertheless the principles are the same.

The problems of rehabilitation should be considered right from the start of a disability rather than waiting until the medical or surgical condition has been dealt with before raising the subject. Prolonged delays result in the worker becoming depressed and ergophobic. Those who do manage to maintain a high morale throughout

a long illness are often the ones who either have their own jobs waiting for them or who are able to find alternative work themselves. This form of self-selection means that the more difficult cases tend to land up at the units run by the Ministry and naturally there are a certain number of failures.

Difficulties of rehabilitation and other problems of industrial health are particularly marked in the case of workers employed at small factories; these are the very places where environmental conditions sometimes leave much to be desired. It is in many of the smaller factories that there is the greatest need for help and advice from competent industrial medical officers. In order to make our health service truly comprehensive it will be necessary to design some form of integrated industrial health service and experimental units are being tried out in such places as Slough, Harlow and in the group of factories around the Central Middlesex Hospital.

Before such schemes are introduced on a wide scale decisions about finance and administration have to be made. Large concerns which are running their own services may be unwilling to continue doing so if smaller factories are subsidised by having a service provided. A further difficulty is that if such a service were provided by the State then the status of the Industrial Medical Officer might undergo a change. At present, management is paying for the services of medical officers voluntarily; it can therefore be assumed that advice offered by them will be accepted and implemented if it is at all possible. On the other hand, if the doctor is employed as part of a nationalised industrial health service then he may come to be regarded as an inspector who merely makes reports to the Ministry.

The second difficulty to be resolved before a comprehensive industrial health service can be operated is to answer the question, "which Ministry?" The National Health Service is the responsibility of the Minister of Health, but industry is the responsibility of the Minister of Labour who controls the only official rehabilitation units in the country and to whom the factory inspector and appointed factory doctors are ultimately responsible. In this connection there is the precedent of the school health service which is the responsibility of the Minister of Education.

These and other difficulties may be resolved in due course but meanwhile the occupational health service is not comprehensive. There is, however, a fairly standard pattern about the doctors who work in it, and the service they offer.

Many doctors who are now working full-time in industrial medicine began by being general practitioners. They applied for posts with local factories and offices in a part-time capacity, and when they found that the work or the hours or both were more attractive than general practice, they transferred to full-time work with a large concern.

In general, the senior full-time posts of any kind are fairly competitive but those who have had special training in industrial health or preventive medicine should not experience undue difficulty.

Younger doctors wanting to enter this field can attend one of the special courses. The contents of such a course include the principles of preventive medicine, epidemiology and toxicology. It is also necessary to learn about rehabilitation and the clinical features of diseases associated with industrial processes.

Postgraduate instruction in occupational health is given at certain Universities. In London, the School of Hygiene runs a formal course; candidates can take an exam., and if successful will be awarded a Diploma in Industrial Health (D.I.H.). Most large firms are willing to grant study leave to their industrial medical officers to obtain this diploma, though this is usually conditional on the doctor returning to the firm for an agreed period.

Promotion in the field of industrial medicine depends partly on vacancies but also on ability and it is not by any means automatic. Anyone who is suitably qualified and who has worked conscientiously, however, should have no difficulty in getting ultimately to a responsible and well-paid position. One of the surest passports to success is well-planned research for which there is great scope in industry. Furthermore, with the growth of the specialty the chances of entering the academic field is also increasing for those who are interested.

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AUGUST CARL SCHULENBURG

An Obituary

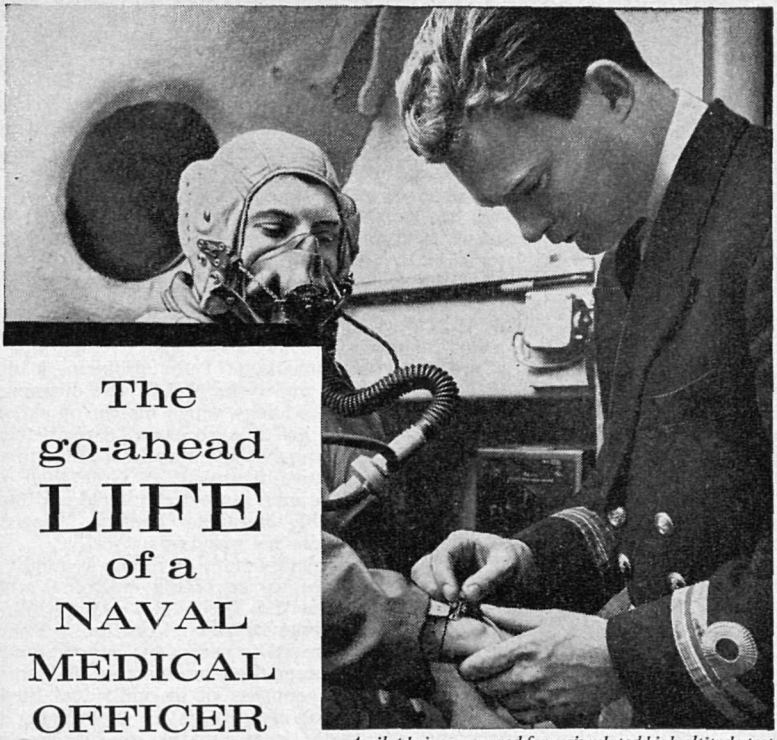
August Carl Schulenburg was born in the Transvaal on 16th October, 1879. At the beginning of the Anglo-Boer War he joined the Boer forces as a young man. He was taken prisoner of war and sent to Bermuda, where he was released with the amnesty in 1902. From Bermuda he proceeded to the United States of America and entered the Washington University in St. Louis. There he obtained his M.D., and then went to London, where he entered Guy's and passed the Conjoint exams. in 1908.

Dr. Schulenburg returned to South Africa and started practice at Ventersdorp in the Transvaal in 1909, where he became greatly beloved and respected by everybody who came into contact with him. He soon had a large practice in the area.

During 1947 Dr. Schulenburg suffered a mild coronary attack and he was prevailed upon to retire from active practice. He retired to Potchefstroom in the Transvaal where he died on the 8th of July this year. During his stay in Potchefstroom he was elected to the Council of the local University, and the local Hospital Board on which he served until a few months before his death.

It was a great privilege to have known Dr. Schulenburg who, all through his career, set a very high standard of professional ethics in his practice, and to hear him say to a gathering of colleagues that one or other principle of practice was instilled at Guy's, was a real pleasure to the Guy's graduate.

Dr. Schulenburg is survived by his widow, a daughter, and three sons, who are all three doctors. To them all we extend our most heartfelt sympathy.



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CORRESPONDENCE

General Practice

SIR, Perhaps ten years in General Practice is an insufficient period upon which to base any views which will be accepted as being experienced. It seems, however, to be an appropriate time to take stock of the situation. Some of the original altruisms (as expressed in *Passim* of August 8th) have worn off and, it is hoped, the slovenliness which has led to the attitude in teaching hospitals that the term G.P. is synonymous with moron has not yet appeared. It is a time when it is not quite too late to start again and, under the N.H.S., one must admit that there are very few G.Ps. in my age group who have not seriously thought about flight—quite a few having actually fled.

Passim, somewhat naively, describes the system of charging a patient who wishes to attend his G.P. as a fine for those who need more than average medical attention. Though this is a gross over-simplification of the problem, it does pinpoint the great dilemma of General Practice under the N.H.S. The dilemma is that if a G.P. has to sift all the minor symptomatology which his list of patients produces he has inadequate time to practise his true vocation, namely therapeutic medicine. On the other hand he also knows that minor symptomatology is the key to early diagnosis and more effective treatment. Now that pre-symptomatic diagnosis is with us, the problem is even more accentuated and tends to produce in the conscientious G.P. a sizeable emotional conflict. However hard he tries not to, he is forced to compromise his standards.

If one looks for a possible explanation of this state of affairs it might be concluded that its origin lies in the freedom of choice of the individual which strangely the N.H.S. has to some extent removed. The N.H.S., in attempting to provide necessary treatment for all, has in practice taken from the individual his right to determine whether or not he is prepared to accept his minor ailments and, furthermore, whether he is prepared to accept the consequences of ignoring them. Traditionally, the practice of Medicine consists of an individual buying the opinion of an expert about his physical (or mental) state. In bringing the N.H.S. into being the Government, admittedly from the best of motives, has intervened in this traditional arrangement. It has made a bulk-purchase of medical opinion on behalf of the patient and at the patient's expense. If we still accept, and I hope we do, that the population of the country consists of individuals with personal preferences and priorities, one must conclude that such a scheme will result in widespread dissatisfaction. Unless it becomes possible to restore this freedom of choice to the individual, the present state of General Practice with the inordinate but not unreasonable demands by patients for the medical attention for which the Government has forced them to pay, will continue to produce greater and greater dissatisfaction.

The B.M.A. in its usual duplicity has appeared to both approve of some payment by the patient and at the same time disapprove of there being any financial barrier to the sick requiring medical attention. Any minor readjustments of the existing system can have no more hope of success than could a group of misguided enthusiasts have a hope of beating the world land-speed record by tinkering with a 1901 Veteran Motor Car.

We, in General Practice, who have not entirely given up the hope of realising our vocation, look now for a Government who will have the courage to admit that the bulk-purchase of medical attention is no more successful than was the bulk-purchase of other commodities in the post-war period. If, however, Governments persist in imposing a N.H.S. organised on the present lines, then they must also impose a different type of medical training. Nothing is more certain than the fact that our present medical schools are teaching individuals to do something which it is becoming less and less possible to do in General Practice in this country under the National Health Service.

Yours, etc.,

B. A. TUDGAY.

30, High Street,
Wadhurst,
Sussex.

Hypnosis and Burns

SIR, Barbara Cousen's article "The Burned Child" tells us vividly of the horrors and terrors that the unhappy child continues to suffer after the original pain that scalds and burns cause.

I would like to suggest that a competent hypnotist could do very much to eliminate a great deal of this suffering.

I have never used hypnosis in the treatment of burns, but in the last two years of my practice as a surgeon I have got results from it in other conditions that have astonished me.

May I outline one example of the benefit due to hypnosis? A young District Officer of about 30 years of age was wounded in a fracas with tribesmen in the Banguela district of Northern Rhodesia. He was brought into the hospital nearly dead. There were spear wounds in the chest and a bullet had shattered the head of the right humerus. It had also bruised the brachial plexus causing ulnar nerve paralysis. After two days of resuscitation he began to suffer severe pain in the ulnar nerve distribution. It was so bad that he needed 1/3 gr. of morphia every three hours.

The pain was completely relieved by hypnosis for spells of about 22 hours, when the induction had to be repeated. This was done at about 9 a.m. each morning, taking about ten minutes to do, after which he would be in a trance the whole morning. In this period dressings and physiotherapy were painlessly carried out. After a fortnight it was no longer necessary to hypnotise him. The bruised nerve did recover but much later.

The hypnosis was induced by an amateur with small experience.

This case is one example among many. The distresses, for instance, caused by haemorrhoidectomy are, in my experience, wonderfully mitigated by hypnosis, children are easy to hypnotise, and someone concentrating on this aspect of hynosis would soon learn many tricks of the trade. For instance, it should be possible to leave a "signal" to be used by the nursing staff to induce hypnosis after the first few sessions with the hypnotist, once he had gained the confidence of the Staff.

Yours, etc.,

P. F. S. COURT.

Le Vieux Clos, Sark, C.I.

New Midwives

SIR, May I, through the courtesy of your columns, stress the need of the Obstetric Unit for midwives to fill the present gap on the grossly depleted staff?

I would welcome enquiries from trained midwives who are at present overseas, but may be planning to return to the United Kingdom in 1965. Others, who can undertake Part Time work for day or night duties, will be given every possible consideration.

There is little doubt that we have already recruited our share of the nation's resources overall, but I am hopeful that this letter may rouse additional interest, and our need is great.

Meanwhile, it is fitting to emphasise how much Guy's owes to the present Sisters of Victoria Ward and Nuffield "D" Floor, whose indomitable and tenacious industry is an example to us all.

Yours, etc.,

ANNE M. JOHNSON,
Matron.

Matron's Office,
Guy's Hospital.

GUY'S HOSPITAL BIENNIAL DINNER

This will be held at the Connaught Rooms, Great Queen Street, Kingsway, London, W.C.2, on Friday, 2nd October, 1964, at 7.0 p.m. for 7.30 p.m. Dress —Dinner Jacket. The Chairman will be E. G. Slesinger, Esq., O.B.E, B.Sc., M.S., F.R.C.S. The Biennial Dinner affords the most popular opportunity for old Guy's men and women—medicals and dentals—to meet together and renew the friendships of their student days.

The Hon. Secretary will be grateful if Guy's men and women who intend to be present will apply for tickets (£1 15s.) as soon as possible to the Hon. Secretary, Biennial Dinner, Guy's Hospital, S.E.1 (Telephone HOP 7600, Extensions 341 and 342).

The following acceptances (giving the year of qualification) have been received up to 14th August, 1964:—

A

Abrahams, S. I. 1927
Adams, J. F. R. 1958
Allanby, K. D. 1945
Annesley, F. D. 1914
Atkins, H. J. B. 1932
Aumonier, F. J. 1944

B

Batchelor, J. S. 1931
Batty Shaw A. 1945
Bigby, W. L. M. 1928
Bird, A. C. 1961
Bishop, P. M. F. 1929
Blacker, C. P. 1925
Blaikley, J. B. 1928
Blockley, C. H. 1939
Boland, Sir Rowan 1923
Brett, Miss J. 1952
Bradshaw, M. F. 1962
Bridge, A. J. 1945
Brown, Austin 1944
Buckle, A. E. R. 1950
Budd, W. E. R. 1940
Budgen, J. P. B. 1960
Burns, T. H. S. 1946
Butcher, A. S. F. 1950
Buxton, J. D. 1943

C

Campbell, A. C. 1945
Clarkson, P. W. 1935
Clayton-Jones, E. 1927
Clemmey, A. V. 1925
Collier, H. N. 1926
Crabtree, J. W. A. 1942
Craigen, A. A. 1948
Crisp, E. J. 1920

D

Debenham, C. M. W. 1937
Deuchar, D. C. 1948
Dixon, G. 1951
Doherty, W. D. 1920
Duckworth, D. V. 1952

E

Eckhoff, N. L. 1923
Ellis, F. G. 1949
Ellis, G. G. 1932
Enderby, G. E. H. 1940
Evans, G. M. 1943

F

Falconer, Murray 1933
Fincham, Mrs. E. 1952
Fourman, P. 1941

G

Gain, R. G. G. 1957
Gallagher, C. E. 1927
Gallagher, Miss L. 1959
Garrus, H. N. 1931
Genge-Andrews, G. E. 1912
Gibberd, G. F. 1923
Gill, W. G. 1932
Glendinning, N. W. 1955
Glendinning, Mrs. N. W. .. 1955
Grene, J. D. 1942
Guerrier, H. P. 1940

H

Halamandres, O. 1943
Hart, R. D. C. 1947
Haslam, R. K. 1944
Henderson, I. D. 1943
Heylen, Miss J. 1952
Hills, T. H. 1935
Hitchings, D. B. 1923
Hoby, H. J. 1912
Houghton, Mrs. M. 1955
Houghton, L. W. 1924
Houghton, Mrs. V. P. 1955
Housden, C. H. 1912
Houston, J. C. 1939
Hughes, W. 1931
Hunt, B. W. 1936
Hunt, J. N. 1940

I

Irish, N. H. 1935
Irvine, R. E. 1944
Ive, O. 1930

J

Jacoby, M. N. 1962
Jacoby, N. M. 1934
Jago, F. H. A. 1959
James, W. L. 1932
Jeanes, A. L. 1947
Jenman, J. L. 1946
Johnson, B. D. 1940
Johnson, W. J. 1930
Joyce, H. L. 1941
Joyston-Bechal, E. 1923

K

Kinder, C. H. 1945
Kirkpatrick, W. R. 1926

L

Lewis, E. C. 1950
Lewis, T. L. T. 1942
Lund, W. S. 1954

M

McConnell, W. S. 1927
McGill, D. A. F. 1952
MacLean, K. S. 1939
Maile, W. B. D. 1940
Malone, C. D. 1929
Mann, W. N. 1935
Manning, F. R. C. 1941
Mant, A. K. 1943
Marsh, S. A. 1943
Marshall, Sir Geoffrey .. 1911
Martin, J. N. 1926
Maxted, P. B. 1942
Mayer, J. H. 1935
Membrey, A. J. 1955
Merryweather, R. 1944
Moffat, R. J. R. 1954
Morgan, J. K. 1944
Morgan, O. Gayer 1913
Morris, J. D. 1949
Murray, B. R. P. 1957

N

Nicholson, T. W. 1954

P

Peatfield, B. J. D. 1961
Pentney, B. H. 1944
Pentney, Mrs. B. H. 1952
Ponder, A. 1935
Popplewell, J. R. F. 1930
Post, H. W. A. 1926

R

Rahilly, D. M. 1947
Read, P. 1947
Ripman, C. H. 1907
Ripman, H. A. 1941
Robinson, K. F. 1949
Rogers, A. Talbot 1921
Roots, O. J. 1906
Rushforth, A. F. 1940
Russell, P. S. B. 1950

S

Sanders, W. B. 1942
Scholefield, B. G. 1924
Schurr, P. H. 1943
Scott, E. D. 1913
Scott, G. W. 1949
Scott, N. I. 1942
Scott, S. C. C. 1953
Scott, Mrs. S. C. C. 1955
Shaw, M. E. 1921
Simpson, Keith 1930
Simpson, I. D. 1957
Simpson, Mrs. I. D. 1959
Slesinger E. G. (Chairman) .. 1911
Smallshaw, J. K. 1960
Smith, R. D. 1957
Spurrell, W. R. 1924
Stamm, T. T. 1928
Steward, G. V. 1930
Stiles, P. J. 1956
Stone, A. W. P. 1941
Strong, S. V. 1925
Sutcliffe, R. B. 1931

T

Thomas, I. B. 1950
Thurston, G. L. B. 1933
Tunnadine, D. E. 1953
Tyrer, K. B. 1957

V

Vance, J. 1948
Vans Agnew, W. 1950
Vine, S. M. 1943
Vulliamy, D. G. 1941

W

Wass, S. H. 1934
Watts, J. A. E. 1940
Wheatley, D. P. 1945
White, R. H. R. 1950
Wilderspin, K. 1955
Wilkinson, P. A. 1934
Williams, S. R. 1957
Wolstenholme, A. G. 1944
Wood, C. E. R. 1931
Wood, G. Nesbitt 1928
Woodward, T. W. H. 1942
Worthington, C. L. 1925
Worthington, S.

Y

Yerbury, R. O. 1937

Z

Zorab, E. C. 1933
Zorab, J. S. M. 1956
Zorab, P. A. 1951
Zorab, R. A. 1940
Zorab, W. G. 1937

NOTICE

Guy's Hospital College

When the resident House Officers move into their new quarters in Guy's House in September, the residential part of the College will remain in use as a student hostel; " take-in " dressers and clerks will also have rooms there as at present.

The initial rents of the rooms will be £2 5s. 0d. a week for the larger bed-sitting rooms, and £1 15s. 0d. a week for the smaller rooms, but it may be necessary to increase these rents, and the rents of the rooms in the other hostels, following a review of costs later in the year.

Would those clinical students who would like to be considered for a room in the College in September, or early in October, kindly inform the Medical School Office as soon as possible.

C. G. BAKER,
Warden.

SPORT

THE 1964 CRICKET TOUR

With the customary eagerness, half a dozen cars left the Hospital between 10.30 and 1.30 to rendezvous at Basingstoke, where the initial game of the tour is staged. The week got off to its usual excellent start when the "squire" was bowled offering a copy-book off-drive along the wrong line with the total still at zero. MacGregor, however, began to move things along, and when Hambleton came to the wicket he was in full sail. The rather slow start was soon forgotten when these two began scoring at well over one run a minute—Crafts came in after the dismissal of MacGregor, who had scored 31 out of the total of 44, and proceeded to take complete command when he and Myall, who played very attractively after a long lay-off, then put on 84 for the eighth wicket in 48 minutes. Crafts was then given out by the Guy's umpire, who suffered a rather unfortunate lapse on hearing a stifled appeal from square leg. The innings was declared at 184—8 leaving the opposition 130 minutes to get the runs, which they did after an exciting struggle with four minutes to go and two wickets standing. Next stop Selbourne. Thatchings was eventually located in the early hours after two members of the side had fully investigated the signpost of an aptly named country lane.

The side visited Littlehampton determined to administer a beating, as this has usually proved a rather dull fixture on the field at least. After a fairly respectable start by Littlehampton, they collapsed from 54—4 to be all out for 113, but not before Reekie had taken three wickets with deceptively flighted long hops and a full toss. Knott and Walter took over the duties of opening the Guy's innings, and they made full use of the loose bowling by taking the total to 50 in the 20 minutes before the tea interval. These two went on to make the biggest opening stand of the season (93) either for or against Guy's, and the Hospital went on to win by eight wickets, Walter having made an excellent unbeaten 69—his highest score for Guy's.

The team are paid no mean compliment when they visit Bognor, as this game is annually chosen for the Groundsmen's benefit match. A large crowd was again present to witness the first Bognor victory for at least five years. The Hospital's downfall was due to a good innings by Downie (55) after Bognor had been in early trouble, and some rather irresponsible batting by the Guy's middle order. Guy's won the 11 overs a side "Beer" match after a hurricane innings by the "Squire" who made 44 in 20 minutes. After the customary cold supper at Thatchings, the side proceeded in force back to Bognor to score yet another victory in the bar, where the "old faithfuls" were also suitably entertained. Silk on endeavouring to navigate his vehicle from the ground, successfully demolished a rather ancient bench bearing a brass plaque to commemorate a past President of Bognor C.C.—this was obviously in preparation for running over the kit and then helping to shorten the life of the front gate post.

The team were put in fine trim for the match against Ferring with a prodigious number of G.B.L.'s at the Ship, and for the first time since the fixture was inaugurated managed to bowl Ferring out. MacGregor received his usual "unplayable" in the first over, and then Myall, Silk and Hambleton struck forcefully at well over the run per minute mark in sterling fashion. Price, Appleby and Knott added to the total in quick time and Guy's were dismissed for a hard hit 187. In an exciting finish, Ferring lost by ten runs with five minutes of play remaining. The golf match in the morning was squared, the consorting Reekie showing his prowess on the links after an interesting experience in the small hours.

The first day of rest was extremely quiet perhaps in anticipation of what was to follow on the next. Four members of the side represented Bognor and got their pictures in the *Bognor Observer*, and the rest spent a lazy time on the

beach and playing golf. The morale of the side took a heavy blow when a strong local fancy "blew up" in the final furlong and lost by a short head at Brighton.

On Wednesday the usual visit was paid to Arundel, where Knott and Reekie renewed their partnership in a rather suspect river craft; a similar edition of the boat from which they parted company somewhat prematurely on the previous tour. They were accompanied by three others in another craft with the globular Baker in the engine room and a plastered Registrar at the helm.

The improved Selsey Run was completed by four members in the space of 85 minutes, two of whom lightened their loads in impressive fashion en route, the third having made "The Ship", encountered trouble with Newton's Third Law of Motion for a period of time, and the fourth having apparently been rather bored with the proceedings, drove solo round the town for half-an-hour. Walter, at closing time, had an uneventful stroll home and then made an expensive, rather abrupt, long distance telephone call which ended when the G.B.L.'s took their toll.

Having assembled at Cuckfield, Guy's fortunately won the toss after a nasty looking crowd had gathered and threatened an ugly scene had they been forced to field. Biggs, as it is customary each year, hit some towering sixes, and Jones batted well for 44 not out. Things looked gloomy when Cuckfield coasted to 100—5, but Reekie fielding brilliantly in the gully took three catches and Knott bowling gentle off-breaks finished Cuckfield off for only another 15 runs. The vocal chords were again exercised in the evening to mark the end of yet another memorable tour.

Reports and Results

CRICKET

GUY'S v. BASINGSTOKE July 31st
Guy's, 184—4 dec. (J. Crafts, 67; R. Myall, 37; H. MacGregor, 31.)
Basingstoke, 185—8. (N. Knott, 3—52.)

GUY'S v. LITTLEHAMPTON August 1st
Littlehampton, 113. (I. Reekie, 3—10; J. Crafts, 3—32.)
Guy's, 116—2. (M. Walter, 69 not; N. Knott, 42.)

GUY'S v. BOGNOR August 2nd
Bognor, 159. (N. Knott, 5—56; M. Walter, 4—45.)
Guy's, 100.

GUY'S v. FERRING August 3rd
Guy's, 187. (R. Myall, 45; G. Hambleton, 39; D. Silk, 30.)
Ferring, 177. (J. Crafts, 4—59.)

GUY'S v. CUCKFIELD August 6th
Guy's, 165. (M. Jones, 44 not; D. Biggs, 32.)
Cuckfield, 115 (N. Knott, 5—28; J. Crafts, 3—29.)

TENNIS

LONDON HOSPITALS NURSES' TENNIS TOURNAMENT

On 29th July, at the Surbiton Lawn Tennis Club, Guy's Hospital reached the semi-finals of the London Hospitals Nurses' Tennis Tournament. 24 pairs, representing 12 London hospitals, competed in four sections; the pair winning the greatest number of games in each section qualifying for the semi-final. One Guy's pair, Miss Ann Howarth and Miss Mary Ryan, were runners-up in their section to the eventual tournament cup winners, Middlesex Hospital, winning 30 games out of a possible 45. The other pair, Miss Vicky Fort and Miss Deidre Latta, won 37 games out of a possible 45 and reached the semi-final, where they were defeated 6—3 by the hard and accurate hitting of St. Thomas' Hospital players. An exciting final was eventually won in fading light by Middlesex Hospital, 4—6, 10—8, 6—4.

DEIDRE LATTA

What do you know about the Q.A.'s?

Q What do the letters Q.A.R.A.N.C. (usually shortened to Q.A.) stand for?

A Queen Alexandra's Royal Army Nursing Corps. Founded in 1902 by Queen Alexandra as the Q.A.I.M.N.S. (Queen Alexandra's Imperial Military Nursing Service), the Q.A.'s are immediately recognizable by their famous uniform of grey dress and scarlet cape.

Q What do the Q.A.'s do in peacetime?

A They nurse the Army and its dependents—not only serving soldiers, their wives and families but many civilians attached to the Army at home and abroad.

Q Are there opportunities of serving abroad and if so where?

A Most Q.A.'s spend some time at an overseas station. There are Army Hospitals staffed by Q.A.'s for instance in Hong Kong, Singapore, Cyprus, North Africa and Germany, to mention just a few.

Q Does the Q.A.R.A.N.C. want trained nurses or beginners?

A There are vacancies for both, but if you are an S.R.N. when you join you will be commissioned immediately.

Q Are there opportunities of increasing professional knowledge?

A Q.A. standards are high, and there's probably a greater variety than anywhere else—you can do Tropical Medicine, Midwifery and Pediatrics as well as all the usual branches of nursing.

Q To sum up—what is the main appeal of the Q.A.'s to a young trained nurse?

A In the Q.A.'s you can see the world and get further nursing experience at the same time. Good pay and allowances, smart uniforms, generous holidays with special travel facilities, a special cumulative gratuity paid to you on leaving—the Q.A.'s have all this to offer.

If you're an S.R.N. and would like to know more about nursing as an officer in the Q.A.'s, write to Matron-in-Chief QARANC, Department AMD 4, (GO/Q34F) Lansdowne House, Berkeley Square, London, W.1.

try for a commission in the QA's

QUEEN ALEXANDRA'S ROYAL ARMY NURSING CORPS

HOSPITAL INFORMATION

APPOINTMENTS VACANT

GUY'S HOSPITAL, S.E.1.

Applications are invited for the post of **middle grade Registrar in Psychological Medicine**, with appointment from 1st October, 1964. Application forms are available from, and should be returned to, the Superintendent, Guy's Hospital, London Bridge, S.E.1, not later than **31st August, 1964.**

Senior House Officer (Resident) **in Thoracic Surgery,** from October 1st, 1964, for **five** months. Applications, giving names of two referees, to the Superintendent by **August 31st, 1964.**

GUY'S HOSPITAL, S.E.1.

Applications are invited for the appointment of **Senior Registrar/Registrar in Clinical Dental Surgery** with duties to commence as soon as possible. Forms of application are obtainable from, and should be lodged with, the Superintendent, Guy's Hospital, London, S.E.1, not later than **Tuesday, 1st September, 1964.**

GUY'S HOSPITAL, S.E.1.

Secretary required on three days a week in the **Skin Department,** Guy's Hospital, and two days a week in Harley Street. Previous experience as Medical Secretary would be desirable. Apply in writing, stating age and giving details of education and previous experience, to the Secretary, Guy's Hospital Medical School, London Bridge, S.E.1.

HOUSE APPOINTMENTS

September 1st, 1964

Assistant House Surgeons

To:
Mr. Lawrie — Mr. R. J. Parker
3 months

Mr. Glover — Mr. F. D. Higgs
Appointed for 6 months, the first 3 as A.H.S.

Mr. Brain — Mr. C. P. W. Warren
Appointed for 6 months, the first 3 as A.H.S.

Mr. Beard — Mr. P. K. D. Bush
3 months

Assistant House Physicians

To:
Dr. Mann, Dr. Scott, and Dr. Bishop — Mr. J. R. W. Keates
Appointed for 6 months, the first 3 as A.H.P.

Dr. Hardwick, Dr. Trounce, and Dr. Deuchar — Mr. H. A. Armstrong
Appointed for 6 months, the first 3 as A.H.P.

Dr. Baker, Dr. Houston, and Dr. Grimble — Mr. T. J. B. Harris
Appointed for 6 months, the first 3 as A.H.P.

Dr. Kauntze, and Dr. Joiner — Mr. D. M. Evans
Appointed for 6 months, the first 3 as A.H.P.

Professor Butterfield, and Dr. MacLean — Mr. C. J. Padfield
Appointed for 6 months, the first 3 as A.H.P.

Casualty Officers

Mr. P. Banks
Mr. A. Dowlatdad
Mr. R. J. Hart
Mrs. J. E. Husband
Mr. B. G. R. Neville
Mr. R. L. Strickland
} *3 months*

House Surgeons

To:
Mr. Eckhoff — Mr. D. K. C. Cooper
3 months

Professor Atkins — Mr. W. G. Reeves
6 months

Mr. Wass — Mr. C. B. T. Adams
3 months

Mr. Blackburn — Mr. M. N. Maisey
6 months

House Physicians

To:
Dr. Mann, Dr. Scott, and Dr. Bishop — Mr. M. O. Rake
3 months

Dr. Hardwick, Dr. Trounce, and Dr. Deuchar — Mr. F. Navab
3 months

Dr. Baker, Dr. Houston, and Dr. Grimble — Mr. I. Vadasz
6 months

Dr. Kauntze, and Dr. Joiner — Mr. A. E. Davis
6 months

Professor Butterfield, and Dr. MacLean — Mr. M. C. Pearson
3 months

Resident Obstetricians

1.5.64—31.10.64 — Mr. D. Denis-Smith
1.7.64—31.12.64 — Mr. D. G. Bancroft
1.9.64—28.2.65 — Mr. A. Thomas
1.11.64—30.4.65 — Mr. J. R. Hockey

Throat and Ear House Surgeons

Mr. J. P. Sedgwick — *3 months*
Mr. J. A. S. Carruth — *6 months*

Orthopaedic House Surgeons

Mr. R. Kumar — *3 months*
Mr. J. M. Latham — *3 months*

Dermatological House Physician

1.6.64—30.11.64 — Mr. C. J. Guerrier

Neurological House Physician

Mr. B. S. Worthington — *6 months*

Genito-Urinary House Surgeon

Mr. F. D. H. Birkett — *3 months*

House Surgeons to the Thoracic Unit

Mr. W. D. A. Foster — *3 months*
1.9.64—30.9.64 — Mr. K. M. Pagliero (S.H.O.)

Children's House Physicians

Miss C. M. Britton — *3 months*
Mr. G. T. Klauber — *6 months*

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House Physicians in Clinical Pathology

Mr. J. H. McDonald	3 *months*
Vacant	6 *months*

House Physician to Dr. Bishop, Dr. Wayte and Mr. McArthur

Mr. T. E. J. Healy	6 *months*

House Physicians in the Department of Psychological Medicine

1. 4.64—30. 9.64	To: Dr. Stafford-Clark Mr. P. Kornan
1. 4.64—30. 9.64	To: Dr. Fleminger Mr. P. A. Murray
1.10.64—31. 3.65	Miss M. Restell
1.10.64—31. 3.65	Vacant

R.M.O.s in Nuffield House

1. 7.64—31.12.64	Miss R. A. Smith
1. 9.64—28. 2.65	Mr. C. F. P. Wharton

Resident Anaesthetists

1. 6.64—30.11.64	Mr. J. B. Kelley (S.H.O.)
1. 9.64—30.11.64	Mr. I. M. Boyd
1. 9.64—28. 2.65	Miss R. R. Norton (S.H.O.)
1. 9.64—28. 2.65	Vacant

HITHER GREEN HOSPITAL

House Physician in General Medicine and Infectious Diseases (To commence 15.9.64): Readvertised

JOYCE GREEN HOSPITAL

House Physician: Readvertised
House Surgeon: Readvertised

LEWISHAM HOSPITAL

House Physician to Dr. Llewellyn Smith: Mrs. P. N. Hall-Matthews
House Surgeon to Mr. Cavendish: Miss E. A. Pepper

ORPINGTON HOSPITAL

House Surgeon (To commence 1.10.64): Mr. T. B. W. Johnson

PEMBURY HOSPITAL

Orthopaedic House Surgeon (To commence 6.10.64): Readvertised

QUEEN MARY'S HOSPITAL, SIDCUP

House Surgeon: Mr. J. N. Davies

ST. JOHN'S HOSPITAL, LEWISHAM

Casualty Officer: Readvertised

PASS LIST

UNIVERSITY OF CAMBRIDGE

Final M.B. Examination, Easter, 1964.

Part I. Pathology and Pharmacology

H. A. Armstrong*	C. J. Padfield*
J. R. Hockey*	P. A. Trott*
H. Jay*	

Part II. Principles and Practice of Physic

H. A. Armstrong*	A. J. Knell*
D. W. Bainbridge*	C. J. Padfield*
D. M. Evans*	R. D. Sinclair*
T. J. B. Harris*	H. D. Tunstall Pedoe*
J. R. W. Keates*	C. P. W. Warren*
P. A. Kitchener*	M. L. Wastie*

Part II. Principles and Practice of Surgery

H. A. Armstrong*	A. J. Knell*
D. W. Bainbridge*	C. J. Padfield*
D. M. Evans*	R. D. Sinclair*
T. J. B. Harris*	H. D. Tunstall Pedoe*†
H. Jay*	C. P. W. Warren*
J. R. W. Keates*	M. L. Wastie*
P. A. Kitchener*	

Part III. Midwifery and Gynaecology

H. A. Armstrong*	A. J. Knell*
D. W. Bainbridge*	C. J. Padfield*
D. M. Evans*	R. D. Sinclair*
T. J. B. Harris*	H. D. Tunstall Pedoe*†
H. Jay*	C. P. W. Warren*
J. R. W. Keates*	M. L. Wastie*

*Have completed the examination.

†Distinction

NURSING NEWS

Left

Staff Nurse A. Ashplant from Astley Cooper.
Staff Nurse M. Conlin from Cornelius.
Staff Nurse M. Dodson from Nuffield A.
Staff Nurse P. Fone from Luke.
Staff Nurse E. A. Potter from Cornelius.
Staff Nurse G. Summerell from Cornelius.

PERSONAL

American Professor and family require furnished house mid-September within thirty miles of London. Box No. 561.

Would Guy's man or woman resident Southend Rochford area, help Guy's man find digs for 18 year old son coming to area September 21st, Mr. Dyer, 4a, Victoria Road, Deal, or 'phone 949 after 6 p.m.

CHANGES OF ADDRESS

Dr. J. E. Brett, M.A., M.B., B.Ch., L.R.C.P., M.R.C.S., D.A., F.F.A.R.C.S., 9, Michael's Close, Belmont Park, S.E.13.

Mr. and Mrs. M. T. Gain, 66, Leicester Road, Hinckley, Leicestershire. (Surgery unchanged.)

G. S. Gibberd, C.B.E., 38, Devonshire Street, W.1. Tel. Langham 4032 (unchanged).

Mr. and Mrs. A. R. Lynch, 7, Ryder's Terrace, St. John's Wood, London, N.W.8.

Dr. N. K. Macrae-Gibson, 36, Brockley Park, S.E.23.

Mrs. and Mr. Ian McColl, 10, Gilkes Crescent, Dulwich Village, S.E.21.

BIRTHS

BOWES.—On May 28th, to Pamela (née Abbot, M.C.S.P.) and Colin Bowes, L.D.S., a son, Matthew Cornelius, a brother for Anna.

DAVISON.—On 27th March, 1964, at Princess Mary's R.A.F. Hospital, Halton, to Anne (née Rogers, S.R.N.) and David Davison, M.B., B.S., a daughter, Sarah, a sister for Jonathon and Caroline.

MACRAE-GIBSON.—On 31st July, 1964, at home, to Mary and Neil Macrae-Gibson, a daughter, Catriana Mairim, a sister for Gavin.

MOORE.—On March 11th, 1964, to Audrey (née Blinkhorn, S.R.N., S.C.M.) and Brian J. Moore, a son, Julian Nigel Blinkhorn.

PAMPIGLIONE.—On July 11th, a daughter to Sara and Giuseppe Pampiglione, a sister for Julian and Benjamin.

DEATHS

HALLAM.—On August 2nd, 1964, in hospital, after a short illness, John Wemyss Hallam, F.D.S., R.C.S., Eng., of Pipers Lane, Heswell, Cheshire. Darling husband of Marny Hallam, and devoted father of Sally, Martin, and Jane.

WAKEHAM.—On 5th June, 1964, John Y. D. Wakeham, of 5, Tower Road, Orpington, Kent.

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No. 1986
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5th September, 1964

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Editors *T. C. Davis*
B. H. Hicks

Sports Correspondent *N. J. Knott*

Guy's Hospital, London

PASSIM

Whose crime ?

The past three weeks have seen three grand meets of various fraternities. One, social psychiatry, two psychotherapy, and three the British Association. This last has kept to the news headlines remarkably well with the notice of Professor Eysenck's suggestion that crime really does pay. He states that only the really clumsy are caught and this, together with Lord Gardiner's recent assertion that there are probably more university graduates among the criminals than in the police force, paints an attractive picture for the would-be non-recidivist.

Any examination of prison records shows a remarkably high intake of known homosexuals, some of whom have been "caught" by the police and others who have been blackmailed into horrible admissions. The present Criminal Law cannot aid anyone in his attempts at helping a homosexual; indeed a prison sentence seems a particularly unintelligent move, but it is still practised and one must live with it, at any rate for the moment. Donald West has said that " Homosexuality is a part of life that intelligent people should know about and understand. Unhealthy ignorance causes an almost unbelievable amount of misery and frustration".

In view of the cloak of secrecy with which our society shields itself from the spectacle of abnormality, and the uncompromising denunciation by moralists of what they call " unnatural vice", it is no surprise that the average person looks upon homosexuality with rooted aversion, and that his ideas about it are crude. The study of the aetiology of this instinctual anomaly suggests that constitutional factors are more important than environmental ones, but there has been no discoverable structural or endocrinological basis to it ever demonstrated. At least 4 per cent. of the adult population are confirmed homosexuals, and it is estimated that about 25 per cent. of adult men enter into a frank homosexual relationship at some time in their lives. And from then on they are ever open to blackmail.

Various European countries have very openly admitted to the problems that homosexuality poses for them, and community centres and clubs have been organized and opened on a national scale to facilitate and help the homosexual in his dealings with, what is for him, an abnormal society. Perhaps the most that one can hope to do in this country is to " mitigate their sense of social isolation, ostracism, guilt and shame". This cannot be done behind smutty sniggers or locked doors.

The Biennial Dinner

The *corps d'esprit* of a great hospital is a curious mixture of sentiment and convenience, the nostalgia of the "old boy" looking back, the pride of the young man looking about him, the solidity of achievement tainted with the sweet air of legend and tradition. In an age which has inclined to reject the past for its futility, some may well raise the banner of anti-sentiment when a reunion is in the offing. Any other excuse is too easily dismissed for a function which is famously biennial and remarkably inexpensive. Is the emotional objection a fair one? Surely not when that liaison of spirits and persons kindled by such an occasion can only stimulate further endeavours, honour more memories, resurrect many friendships, and make the men and women of Thomas Guy's Hospital for an evening one again. We warmly commend the Biennial Dinner to your attention, and ideally, your support.

Recent correspondence in a medical journal included the topic of doctors' wives, in particular their value, their work, and their remuneration (decreasing in that order, it seems). Tax relief for the practitioner appears to be the reasonable and urgent solution; a separate fixed salary would be difficult to apply fairly throughout all practices and all areas, despite the pleadings of a Pankhurst faction.

While we were not the first to correlate, inversely, the size of a woman's bust to her I.Q. (all credits to an American professor!), we might be the first to suggest an application. Assuming the Ministry-rated value of a wife to be roughtly proportional to her I.Q., and assuming the Professor to be right, perhaps that tax relief could be governed by the appropriate statistics of the ladies concerned. It would not be the daftest regulation of the Ministry, at that.

Another Guy's lady graduate has been appointed to a consultant post. We offer our congratulations to Dr. June Brett on her appointment as Consultant Anaesthetist to the Lewisham and Woolwich group of hospitals.

We were also delighted to learn of the appointment of Mr. G. Lloyd Rankin as Consultant Obstetrician and Gynaecologist to the Chelmsford group of hospitals.

GUY'S DIARY

SEPTEMBER

EXHIBITION.		*Surgery of the Neck.*
10th Th.	1.00	H. F. LUNN, Esq., F.R.C.S. Lecture in Anatomical Theatre. *"Massive Skin Ulceration in Uganda ; A Problem in Aetiology and Treatment."*
17th Th.	5.00	MR. M. FALCONER. Neurosurgical Round. Clinical Theatre.

Grant Massie

C.B.E., M.S., F.R.C.S.

THE unexpected death of Mr. Grant Massie was reported in the last issue of the *Gazette*. This came as a great shock to all at Guy's, for only a few days earlier he had visited the newly opened dining-room in the restored East Wing of the Guy's House. He then looked, and said he felt, very well. He died in his sleep on the 12th August, at the age of 67, having retired from the active staff less than three years earlier.

Massie came to Guy's in October, 1914, being the son of a doctor then practising in Southwark Bridge Road. He was thus associated with Guy's for half a century. He was recognised as an exceptional student, taking the Treasurer's gold medal in surgery before qualifying M.R.C.S., L.R.C.P. in 1920. He passed the M.B., B.S. (with honours in surgery) in 1922, and the F.R.C.S. in the same year. He took the M.S. in 1924. He was later awarded the Arthur Durham Travelling Studentship, the Poulton Studentship, and the Astley Cooper Studentship.

As a Surgical Registrar, Massie continued to make his mark, not only as a brilliant and lucid teacher, but also as a swift and dexterous surgeon. He had slender hands with long, tapering fingers which he used with beautiful grace and precision. His dexterity he learned at the hands of R. P. Rowlands, who was his principal mentor, and whom he admired immensely. To be a house-surgeon in that firm was a great honour, and Massie was kind and helpful to his juniors, and a very easy man to work with.

Having spent about five years as a Surgical Registrar, he became Senior Demonstrator of Anatomy, a post which was, by tradition, a necessary training ground for all aspiring surgeons, and few, if any, were appointed to the general surgical staff without having held this appointment. During this time he wrote his book on Surgical Anatomy, which has been very popular with students ever since. He always maintained his love for anatomy, and later examined in the Primary F.R.C.S. class, which had been inaugurated by Ogilvie a few years earlier. This he continued to organise for a number of years (before handing on to Brock) and his pupils continue to testify to the stimulus and excellence of his teaching. In 1930, when Lambrinudi was extremely ill, Massie was appointed Assistant Orthopaedic Surgeon, but when, three years later, Lambrinudi returned to a full and active life, Massie was offered the opportunity of returning to general surgery, which he accepted.

For some years he had been deputising for Bromley and Putney Hospital, and he was soon appointed to the staff of this hospital. Since he lived in the neighbourhood, he was in constant demand, and the local practitioners were more than delighted to have his help. It was a tribute to his excellence that he was frequently chosen to look after doctors and their families.

Although he always had an interest in problems of an anatomical or orthopaedic nature, he was essentially a general surgeon, and later took a special interest in surgery of the biliary tract. To his juniors,

he was always kind, courteous, generous and loyal, and drew them fully into the work of the team, but did not hesitate to indicate his disapproval of any action that did not measure up to his precepts.

In the Second World War, Massie joined the R.A.M.C., reaching the rank of Brigadier as Consulting Surgeon to the India Command and 11th Army Group. He arrived in India in 1942, and his chief task was to bring the Hospital services of the country, which were very much behind the times, up to what he considered a suitable standard of efficiency. Since medical officers were in short supply, he helped to recruit suitable and selected Indian medical personnel, for the Indian Army ultimately reached two million. Difficulties were much increased by the retreat from Burma. But Massie succeeded in improving the Hospital facilities beyond all recognition. For these services he was awarded the C.B.E. His tours of inspection were anticipated with some anxiety, for though he would always be kind and courteous to the staff, it was known that he was a stickler for detail, and that he would look in every nook and cranny, and possibly at every dressing. At times he would arrive, frustrated by the heat and travelling delays, but his sense of humour helped him through such emergencies. Any leisure was spent in studying local customs and cultures, in which he was profoundly interested.

He found his return to bomb-scarred and disorganised London a little frustrating, especially as his own house had been severely damaged. But he was back in his accustomed place at Guy's as soon as he found somewhere to live. He later rebuilt his own house completely and spent much time in producing a fine garden.

When he became a senior surgeon he was elected to the Board of Governors of both the Hospital and School. His wise counsel was always much appreciated. As a member of committee he expressed his point of view with great clarity and always in impeccable phrases. To listen to him was at all times a delight. He devoted much time and care to the detail of the building of New Guy's House, and it was only fitting that he should be the first person to operate therein. After his retirement from Guy's, Massie was invited to advise on the organisation of surgical post-graduate teaching in the Wessex region, and an ambitious scheme was being worked out when he died. He spent a good deal of his time at Winchester.

Massie was a bachelor and not an easy man to get to know well. He rarely attended social or athletic functions. He was not seen much at meetings or surgical societies, nor did he contribute much to the literature. This was probably due to his innate modesty and shyness. His most intimate friend at Guy's was Carter-Braine, who, unfortunately, predeceased him. He would spend most of his holidays with Carter-Braine and his wife, usually on the Continent, from which he would return laden with photographs, and a mass of memories of beautiful things seen and appreciated. He was a voracious reader, not only of medical journals, but of history, literature and art. For those reasons he was an excellent conversationalist, and a few hours in his presence were well remembered.

N.L.E.

The Development of Anaesthesia

De Insensibilitate, Part I

J. J. MAHER and M. W. POTTS

In this account of the beginnings of anaesthesia an effort will be made to bring especial focus upon such evolution in the British Isles. Clearly, some preliminary considerations of both a general and a particular nature will be desirable despite the necessity for a certain amount of conjecture.

The cultural and scientific progress of the group or racial communities from pre-historic time in all probability encouraged belief in, on the one hand, religious or magical intervention to restore the individual to health, and on the other, a similar attainment achieved by physical, but often none the less magical, means. Whenever the efforts of the appropriate healer resulted in, or were accompanied by, recovery from disease then relief of pain was a by-product which would not have gone unnoticed but, like many such commodities, was not recognised for its intrinsic worth.

The attitude that pain is a sensation which exists principally in order to allow the individual an opportunity to display moral fibre to his gods or fellow men, is one which exists among some races to this day and was undoubtedly prevalent in former times, often coupled with the assumption that death and illness were deific visitations of inexorable finality. The existence of such a code may arise from, or lead to, a continuing inability to provide man with pain relief; in either case, once established in the social or religious structure, it can flower strongly upon efforts directed exclusively towards the acquisition of fortitude. Dependent upon such a special attitude on the part of the individual toward his own pain there is a tendency to regard the pain of others with, at best, admiration and, at worst, callous indifference: so that for example during part, at least, of the long history of the Roman Circuses the often repeated scenes of degradation, brutality and savagery could be viewed as admirable if costly entertainment for the people, whilst permitting the spectacular and necessary enforcement of capital punishment upon malefactors.

The Greeks had a knowledge of opium from about 400 B.C. and there is presumptive evidence that it may have found application as a pain-killer: in the Odyssey (iv, 220) it is written that

> Helen, daughter of Zeus . . . cast a drug into the wine whereof they drank, a drug to lull all pain and anger and bring forgetfulness of every sorrow.

but this may be a rhetorical allusion to pain. None the less there may well have been unique physicians or lay healers prescribing this

or other drugs for a similar purpose at any time since the civilisations of China or the Mesopotamian and Nile regions were established ; indeed to a surgeon named Hua Tu (A.D. 115-205) is attributed the practice of administering narcotic draughts of *Cannabis indica* to patients before operation: he therefore ranks as a contender for the title of discoverer of anaesthesia. However, the point is that these discoveries were, and would for long remain, insufficiently evocative to promote widespread acceptance and application: the climate of opinion was inclement or indifferent and until it overwhelmingly changed the deliberate evolution of anaesthesia was unlikely to unfold.

The narcotic, anodyne, properties of a concoction made from the root, or possibly fruit, of the mandrake had been recurrently noted from at least the time of Celsus (circa A.D. 35), and Dioscorides (1st Century A.D.) writes of the mandragora

> give . . . the wine of the bark of the root . . . to such as shall be cut or cauterised. . . . They do not apprehend the pain because they are overborne with dead sleep.

In 1569 della Porta in the Magiae Naturalis gave details concerning mandragora and in Shakespeare's Antony and Cleopatra the following dialogue appeared (Act 1, Scene 5):—

> *Cleopatra*: Give me to drink mandragora.
>
> *Charmian*: Why, madam?
>
> *Cleopatra*: That I might sleep out this great gap of time
> My Antony is away.

This plant, which is probably identifiable with the Mediterranean plant, *Atropa mandragora,* belongs to the same natural order as *Atropa belladonna;* it is still commonly encountered in that area, and had been invested with fanciful, magical attributes in addition to the therapeutic ones just mentioned.

There was a supposed resemblance of the upper root to the human trunk, but the position of the head in relationship to the root growth was subject to considerable confusion, thus the illustrations variously represent a humanoid whose hair or limbs sprout roots and limbs, or hair, leaves (Plate 1). It was common belief that evil befell those who molested the root, which would scream at the outrage and inflict a deadly curse upon the offender: in order to avoid this unhappy outcome it was recommended by Apuleius in the 5th century that a dog's neck be tied to the plant so that when the animal made off, consequent uprooting would invoke the curse upon it.

In England, scarcity of the native Mediterranean plant led to a bogus substitution of the root of the endogenous White Bryony (*Bryonia dioica*) by fraudulent pedlars; ultimately this plant became synonymous with the mandrake. It is interesting to note that superstition regarding Bryony has survived in England until at least the first quarter of this century. Mr. F. C. Morgan, at present the ecclesiastical Librarian at Hereford Cathedral, relates an authentic account concerning an old labourer who, in Stratford-upon-Avon, had the misfortune to sever a root of Bryony whilst digging. Both he and his

neighbours became greatly apprehensive regarding the likely retribution he would incur: by an act of carelessness which may well have been engendered by morbid insobriety he fell down stairs three days later and died of his injuries. The possible association of these events would not have been lost upon his friends.

In "Anglo-Saxon Magic and Medicine", Gratton and Singer have described a manuscript of circa A.D. 1050, of which their translation of a relevant passage is:—

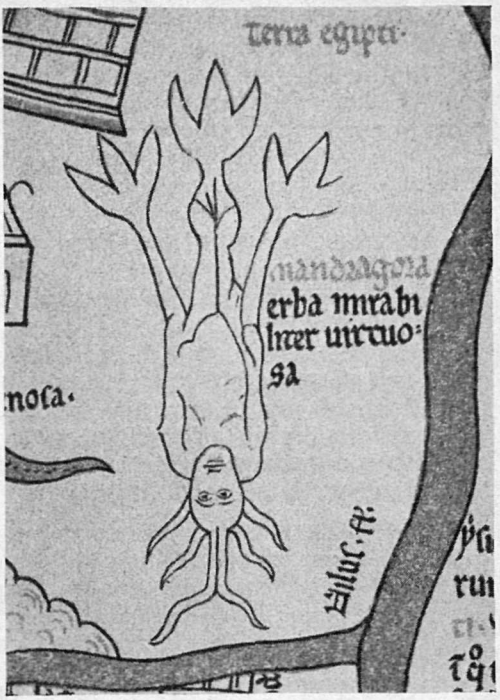

Plate 1

Again, for eruptive rash. Let him sit in cold water until it be deadened; then draw him up. Then cut four scarifications around the pocks and let drip as long as he will.

This appears to be an early record about the use of refrigeration analgesia.

Needless to say, during the Dark Ages and until the end of the Middle Ages, when the practice of medicine was in general only the confused echo of an Hippocratic, Galenic, or Aristotlian shout down the corridors of time, there was a conspicuous paucity of advancement: since, in Europe at any rate, the continuance of dialectics was an almost exclusive scientific pre-occupation and must have successfully smothered much original thought. Despite this there is a further important reference to anaesthesia which belongs to this period. Michael Scot (A.D. 1175), a pupil of the first European Medical School at Salerno, gives the following prescription:—

Take of opium, mandragora and henbane equal parts, pound and mix them with water. When you want to saw or cut a man dip a rag in this and put it to his nostrils. He will soon sleep so deep that you may do what you wish.

This seems a naïve but adequate description of modern anaesthesia. These anaesthetic "rags", the so-called *Spongia Somnifera* are described by Nicolas of Salerno, perhaps in the 11th century, in the Antidotarum (Parvum).

By the 16th century, however, when imagination, curiosity and

logic were beginning to reassert themselves, a progression of subsequently significant discoveries was made. Thus Valerius Cordus (d. 1544) and Paracelsus (d. 1541) both described the synthesis of di-ethyl ether, the latter in addition describing an observation of the effect of the drug upon chickens:—

> . . . Furthermore it has an agreeable taste, so that even chickens take it gladly, and thereafter fall asleep for a long time, awakening unharmed.

Moreover, in 1516, Peter Martyr Angherius described South American arrow-poison, or curare: de Leon, in 1550, mentioned the use of the coca plant in Peru: analgesia by cooling was reiterated in 1595 by de Costa and again in 1661 by Thomas Bartholinus, whilst Valverdi, about 1600, had noted that compression of nerve trunks could dim the pain of surgery: it was, however, left to an Englishman, John Mayow, to give the first account of the nature of the atmosphere, although his findings, which were published from 1668 to 1681 and included references to the probable mechanisms of respiration, produced small impact.

This active pursuit of scientific knowledge, encouraging though it was, did not achieve the impetus which it was to gain with the arrival of the eighteenth century, despite the early appearance during this period of the printing press: the printer's ink permitted the dissemination of dogma and heresy alike.

It is perhaps significant in the above context that the horrors of witchcraft persecution span the fifteenth to the early eighteenth century and must undoubtedly have exerted a stultifying influence upon the interpretation and rationalisation of the unusual or unexpected. It seems reasonable to assume that even Paracelsus' observations upon the strange behaviour of chickens after drinking ether, had they been at this time further pursued, might very likely have been subject to misconstruction: the Malleus Maleficarum of Jakob Sprenger and Heinrich Kramer which was first printed in 1486 and was the sinister standard work upon witchcraft and the punishment thereof, ran to at least six editions in English alone, the last being published in 1669.

The reign of Louis XIV heralded an era of intellectual enlightenment. For example, the Edit du Roi of July, 1682, virtually closed the pages upon witchcraft persecution in France and was but one indication of a healthy scepticism confronting illogical superstition. This age, not surprisingly therefore, became a time of rapid advancement in learning, especially in France, where literary activity, pursuit of the arts, politics, and science, went hand in hand. In England this efflorescence became apparent in the early eighteenth century, when we encounter such men as Thomas Beddoes and Humphry Davy, who were men of letters as well as of science. Unfortunately it was to become a time of intense political upheaval throughout Europe, and both Joseph Priestley, who was forced into exile in America and Beddoes, who was forced to resign at Oxford, suffered thus for their open, liberal and republican sympathies.

Similarly, the work of Davy was hampered by his political views and it is quite possible that anaesthesia might have been successfully introduced nearly fifty years earlier had this not been the case.

Closer examination of the discoveries of these and other scientists shows that they made particularly important advancements which were to be essential precursors of inhalational anaesthesia. They isolated and examined the properties of carbon dioxide, oxygen, nitrous oxide and nitrogen; additionally they formed some understanding of the mechanisms and purpose of respiration.

Joseph Black, Professor of Chemistry at Glasgow in 1755, showed that acid or fire would release from chalk a gas which he called fixed air; although distinguishing this from common air, and so being the first to isolate an atmospheric component, he did not further elaborate on the properties of carbon dioxide. Extending and developing this work on gases Priestley, in 1771, was led by chance to the discovery of oxygen when he heated nitre in a gun barrel; furthermore, in 1772, in a desire to find out whether carbon dioxide would dissolve iron, he experimented with these and nitric oxide (a previous discovery of his), and came across a gas ". . . in which a candle burns quite naturally and freely, and which as yet is in the highest degree noxious to animals". He called this impure preparation of nitrous oxide, dephlogisticated nitrous air; his persistent and stubborn subscription to the phlogiston theory, despite Lavoisier's contrary proof, confounded Priestley into a misunderstanding of this and other discoveries.

The first application of, and interest in, pneumatic chemistry, was effected through the belief that the lungs would prove to be a more controllable route for the administration of therapeutic agents than the classical alimentary one; also that alterations in the proportions of gases in the inspired air would prove beneficial in disease: thus Thomas Percival, of Birmingham, recommended, in 1772, the inhalation of carbon dioxide for phthisis, although he only produced symptomatic relief and admitted no cures.

Soon the principal exponent of the school of pneumatic medicine was to be Thomas Beddoes, a physician at Shifnall in Shropshire. This remarkably versatile man was poet, politician, social reformer and friend of the poets Coleridge and Wordsworth as well as being the brother-in-law of Maria Edgeworth, the famed novelist. In 1792 he wrote his first book on pneumatic medicine and also at this time translated from French a clear and correct account of the function of respiration by Girtanner.

His foundation, in Bristol, of the Pneumatic Medical Institution in 1799 must have been the cause of much satisfaction to Beddoes, but before long his work was to become discredited : little possible success could accrue from a belief in the efficacy of carbon monoxide inhalation for anaemia and oxygen deprivation for breast inflammation : however, the significant feature was that people were becoming accustomed to the notion of inhaling gases. At the incep-

tion of the Institute, Beddoes had shrewdly appointed Humphry Davy as Superintendent, a man for whose abilities he had obvious respect: this may with fairness be urged as an action which cast the longest shadow so far as Beddoes is concerned.

Davy, whose name is widely familiar, is less well known as having in his youth been apprenticed to a surgeon in Penzance before turning to chemistry and physics: his importance, relative to the development of anaesthesia, revolves upon his experiments with nitrous oxide, arising from which he wrote a remarkably graphic and accurate account about the effects of laughing gas, as he named it; indeed, it is clear that he also appreciated the analgesic and narcotic properties of the gas, and even suggested possible surgical use. Further important discoveries and conclusions might have been forthcoming but for Davy's failure to realize that the asphyxia associated with gaseous inhalation was solely a resultant of oxygen deprivation and not due to inherent properties of the gases.

Without doubt the stage was now set for the deliberate use of inhalational narcosis for the procurement of pain relief, since there was adequate knowledge of the fundamental gas laws as propounded by Boyle (1662) and Charles (1787) and of the relevant properties of the narcotic agents, together with some appreciation of the significance of respiration and familiarity with inspiration of various gases. In the early decades of the nineteenth century, in Europe and America, social and scientific advancement, literary influence and a higher standard of living consequent upon industrialisation, were tending to induce, amongst the more favoured classes, an attitude that their living should not inevitably be associated with such brutalities as pain and suffering.

The year 1821 was notable since it saw the successful application by Joseph Récamier, in France, of the method of hypnosis propounded first by Mesmer in 1779; Récamier was able by this method to apply painless cautery.

To Ludlow, also in 1821, there came a young man named Henry Hill Hickman, a general practitioner shortly to become famous for his advocacy of a state of reversible "suspended animation" as a means of producing unconsciousness for surgery: his publication on this subject was made in 1824. Following lines of reasoning which are not well documented, Hickman administered carbon dioxide to animals and produced a temporary narcotic state; experiments also led him to use asphyxia for this purpose and it is interesting to note that he recognised a slowing and weakening of the pulse, together with a relatively bloodless field, presumably resultant upon anoxic myocardial failure. It must be clearly stated that although Henry Hickman recognised the fact that pain could be alleviated by a state of reversible unconsciousness he never at any time suggested the use of ether or nitrous oxide for this purpose, nor did his experiments progress beyond the animal stage: none of this, however, detracts from the foresight of his ideas.

The exhilarating and at times stupefying effects of ether and nitrous oxide inhalation were by now well known and had even attained some social recognition in the form of popular "frolics" in England and, especially, in the United States. Although previously alluded to only at the beginning of this essay, ether had gradually passed into the physicians' armamentarium; for example, in "Domestic Medicine or, a Treatise on the prevention and cure of Diseases", William Buchan, in 1784, and under the heading "Of the Asthma", recommended ether as being a beneficial form of treatment. References to the production of pain relief for surgery were about to become more frequent; for example, following the lead of Récamier, a mastectomy was performed painlessly by Cloquet in 1829. In England, Ward amputated a leg under "mesmerism" in 1842, and since the time of Cloquet there had been much interest in painless surgery performed by this means. In the year following, Braid suggested the name neurypnosis to describe mesmerism and this was rapidly shortened to hypnosis. Other successful attempts were made, at about this time, to undertake surgery without attendant pain: in 1839, following Wardrop's use of syncope in 1832, fainting induced by blood-letting was utilised for surgery. In 1842, a dental extraction was performed by Robert Collyer, the significant feature being that the operation was performed with the patient in a stuporose state induced by alcohol.

These powerful demonstrations that surgery had entered an era when it could be performed painlessly, provided the final impetus which raised the curtain upon inhalational narcosis, for it was but a

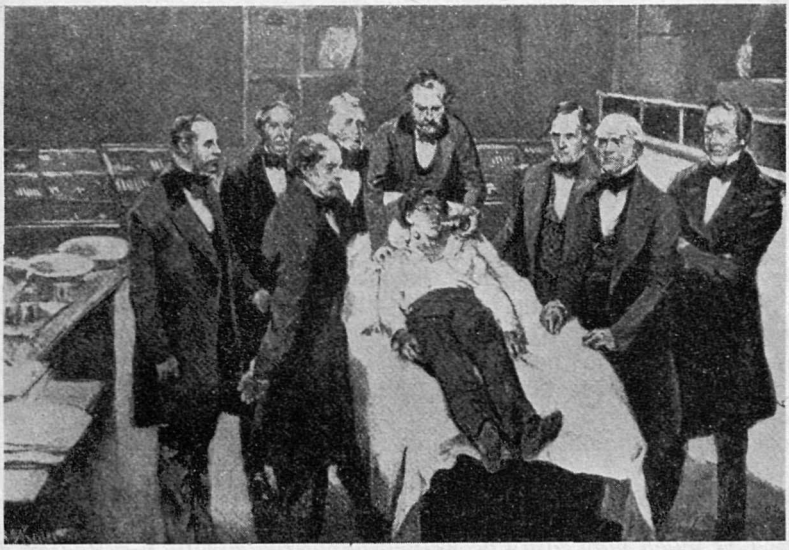

Plate 2. The first public demonstration of surgical anaesthesia; Boston, 16th October, 1846. (Dr. W. T. G. Morton stands fifth from the left)

short step from the use of alcohol-induced insensibility, to the use of ether or nitrous oxide for the same purpose. It was in the United States that the social entertainment value of ether and nitrous oxide was first to be adapted to the far more important role of inducing "suspended animation" for surgery.

There are several claimants to the distinction of being the first to administer either of the above agents specifically for this purpose, but credit is usually given to a dentist, Horace Wells, for the introduction of nitrous oxide, and to his colleague William Morton for ether.

In 1844, Wells, impressed by a demonstration of the effects of laughing gas, elected to inhale the gas himself the following day for the extraction of a tooth: this he found to be dramatically successful. In a subsequent demonstration at the Massachusetts General Hospital, his inexpert administration of the gas resulted in an imperfect performance, and the technique became temporarily discredited. It was not to be successfully re-introduced for dental narcosis until 1863.

Perhaps as a result of this, Morton, who had been a witness to the partial failure by Wells, was led to seek a more satisfactory and potent agent; after conferring with a chemist named Charles Jackson, Morton performed some animal experiments using ether to produce insensibility. On September 30th 1846, he administered this agent successfully for a tooth extraction and, two weeks later, repeated the performance at the same hospital in which his former partner, Wells, had demonstrated in 1844. This, the first surgical operation performed using ether, was for the removal of a small, superficial tumour on the neck (Plate 2).

Oliver Wendell Holmes wrote to Morton in November, 1846, and suggested the term *anaesthesia* for this new technique of pain relief.

Word of this discovery, called anaesthesia, came quickly to London, for it was but two months after Morton's great achievement that Robert Liston performed an amputation through the thigh at University College Hospital on December 21st: the ether was administered by Peter Squire, using an inhaler of his own design.

From the time of Morton's demonstration onward there developed a vast consumer market for this vital adjunct to surgery ; all patients had a right to expect the benefits it conferred and all surgeons were enabled to perform their tasks with greater freedom and safety. Such a demand was inevitably to result in dramatic advances in the practice of anaesthesia, and for the first time all the hitherto unheeded, significant findings were to be rapidly drawn together now that purpose was provided.

As much may easily be written about the evolution of the art in the succeeding century, as hereto. The second part of this essay will appear in the next issue of the Gazette.

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NEW LIMBS FOR NONE

D. S. McKENZIE
M.D.

THE possibility of using external power to operate artificial arms has long been thought of. The first to fit patients with devices of this sort was Dr. Marquardt at Heidelberg, at whose clinic pneumatic limbs, powered by stored carbon dioxide, were developed during the 1950's. The development of miniaturisation techniques for space vehicles stimulated interest in the subject in a number of countries.

Pneumatic Arms

In the spring of 1959, it was decided to explore the field in Britain, and an association was formed between the Ministry of Health's Prosthetic Research Officers and Dr. A. B. Kinnier Wilson's group at the Poliomyelitis Research Unit at the West Hendon Hospital. It was decided to attempt development of pneumatic prostheses starting from a base line of the Heidelberg limb and a visit was made to Heidelberg by members of both groups to study the work there.

It was considered that devices of this complexity were unlikely to provide sufficient functional gain to be acceptable to those with distal amputations, but that they had a potential application for those with bilateral high amputations. This conclusion was made bearing in mind that the amputee with a significant stump has ample power and movement available in the stump and shoulders to activate a useful prosthesis and is unlikely to want to be encumbered with storage bottles (which have to be refilled frequently) and supply pipes, nor to suffer the reduction in mechanical reliability and robustness inevitable with the more complex apparatus. It is further known that the interposition of a powered motor in the control system leads to a loss of the feeling of what is going on at the other end, so that the powered arm is likely to give a less sensitive performance than a direct pull, until some form of artificial "feedback" can be devised. Nevertheless, the bilateral high level amputee has such a small range of body movements available for direct control, that it is hoped that devices of this sort will provide a degree of independence not otherwise attainable by them.

A pneumatic motor was designed at Hendon to be the basic mechanism. This is a twin cylinder piston device, the cylinders being in opposition. Both are charged with compressed gas, movement being obtained by leaking gas from the desired side through a control valve. This is a more sophisticated motor than any of the Heidelberg devices and is thought likely to permit more delicate control. Prototypes were made in various sizes and tried out on a young boy and on several patients with paralysed arms. Difficulties were experienced in finding a really satisfactory control valve.

At about this time, the Thalidomide incident came to light and effort both at Hendon and Roehampton was diverted to meet the immediate needs of the affected children. The first challenge was to find a means of providing some sort of grasp for children too young to be taught anything in the way of a learned skill. A simple pat-a-cake movement was provided, powered pneumatically and operated by body movements in such a way that when the child is interested

in an object and leans towards it the arms close upon it, the opposite movement causing the hand to separate and the object is dropped. This concept originated in Heidelberg but there they attempted to harness movements of the scapula to initiate the pat-a-cake movement. We found that young children could not learn this, but that they quickly learn the cause and effect of the body movement system and soon derive much apparent pleasure and satisfaction from play. This simple grasp ceases to satisfy the child after a period, greater or less in relation to the age and mental development, and as soon as frustration appears, more sophisticated arms are required; at this stage we have added a powered split hook to one or both sides, the control valve for which operated by such digits, if any, as are present. This is also a function which is readily learned by quite young children. We have usually found it possible also to give them voluntary elbow flexion by means of a direct pull, by a combination of lateral bending of the trunk and shoulder elevation. Sufficient power and excursion has usually been available to perform this movement without power assistance and the children soon learn to make the entire movement by shoulder elevation and to do it unobtrusively and skilfully. We have usually retained sufficient "pat-a-cake" function to enable the child to carry out certain bimanual functions of the spoon and pusher type and training in feeding and so forth can begin.

Initially, German components were used in the children's programme but Hendon designed a pat-a-cake device which appears to work more reliably and more smoothly than the German counterpart,

Three children born with severe deformities of arms and legs, two of whom are wearing powered arms

and this has been adopted. Work along similar lines has now been started at the Ministry's Liverpool Limb Centre, and at Chailey Heritage. Children have also been fitted at the Mary Marlborough Lodge, Nuffield Department of Orthopaedics, Oxford, where Lady Hoare's Thalidomide Fund made it possible for work to be started. This Centre has been using German components and German techniques. The Scottish Limb Service has also started fitting children and an attempt is being made there to design a programmed feeder.

The Myoelectric Arm

In 1954, Whillis, Nightingale and Battye, at Guy's Hospital, had demonstrated in a laboratory experiment that it was possible to pick up the minute electrical voltage which is produced when a muscle contracts, and to treat this electronically and use it to control the movements of an electrically operated hook. It was possible to get Dr. Nightingale to join in the Hendon/Roehampton programme and resume work to develop his system so as to provide a graded response, so that the speed and force of the grasp should be proportional to the muscular action. Support for this project was given by the Committee on Research into Appliances for the Disabled (a subsidiary of the Polio Research Fund) and Dr. A. Bottomley was engaged for the detailed work and, in fact, he took over the project after Dr. Nightingale's tragic death. He has succeeded in the primary object of the development and the first protoype set, partially miniaturised, has been fitted to a patient. Further test models are nearly completed. It may be of interest to know that the available Russian arm about which there has been considerable publicity recently, uses the muscle voltage in much the same way but only to provide an on/off switching of the prehension device and not a graded control. The prehension device is a hand in which only the thumb is moved so that the function to be expected cannot be any greater than that deriving from the standard British hand with a shoulder operated thumb, indeed probably less because of the reduced sensitivity. Knowles and de Souza, at Manchester College of Science and Technology, are believed to be working on somewhat similar lines.

These devices are as yet only suitable for application to forearm and possibly upper arm amputees. I have already cast doubts on the acceptability of complex devices to the amputee with a good stump. Nevertheless it is hoped that experience will be gained from selected amputees using the device to enable the performance characteristics to be assessed and perfected and then microminiaturised. Meanwhile, much work is required to determine how the electrical signals can be isolated and picked up in proximal areas, for example the neck and shoulders, to enable those with very proximal amputations to benefit from this type of device.

It is also hoped soon to resume work on the pneumatic devices for proximal amputees. It may even prove possible to combine both systems in the same arm, the pneumatic motors to control, for example, the elbow and wrist and the myoelectric the grasp.

In the meantime a close watch is being kept on developments overseas, for example the work of Kiessling on pneumatic devices in New York, of Tomovik in Yugoslavia, who has a hand which he hopes will carry sensor pads to select the type of grasp, and of McLauren in Toronto, who has designed a programmed feeder for children, to mention but a few.

The editors are grateful to the Roehampton Limb Fitting Centre and the British Limbless Ex-Serviceman's Association for their help in producing this article.

EDWARD SHARP, J.P., M.A., M.D., D.Obst., R.C.O.G.

Dr. Sharp was born in Cornwall in 1907, the son of Hugh Culliford Sharp of Truro, who was himself a general practitioner. Educated at Charterhouse, Gonville and Caius College, Cambridge, he finished his medical training at Guy's, where he qualified in 1931. He gained his Tennis Blue and was President of the Residents.

In 1933 he joined the practice of Erskine and Evans in Epping, and from that date until now he has been a general practitioner there. Always an enthusiastic G.P., his greatest love was obstetrics. Over the last sixteen years he had the post of S.H.M.O. at St. Margaret's Hospital, where he will be very specially missed. In his general practice, too, he was very well loved both by his patients and by his partners. Enthusiastic in all he did, Dr. Sharp set himself very high standards in practice and behaviour, and we shall all remember him as the epitomy of what a general practitioner should be. In his spare time he was an active tennis player, a keen gardener and a gifted amateur sculptor.

Dr. Sharp was married near Bude in 1938, and leaves behind a widow, two daughters and a son, who is following in his father's footsteps at Guy's. To them we offer our deepest sympathy in their so sudden and tragic loss.

S.C.C.S.

NOTICES

The Dental Society Annual Ball

I would like to inform your readers that the Dental Society Ball will be held at the Cafe Royal, on Friday, November 27th, 1964. Further details of the function will appear on posters nearer the time.

STUART ORTON-JONES,
Dental Ball Secretary.

Guy's Hospital College.

When the resident House Officers move into their new quarters in Guy's House in September, the residential part of the College will remain in use as a student hostel; " take-in " dressers and clerks will also have rooms there as at present.

The initial rents of the rooms will be £2 5s. a week for the larger bed-sitting rooms, and £1 15s. 0d. a week for the smaller rooms, but it may be necessary to increase these rents, and the rents of the rooms in the other hostels, following a review of costs later in the year.

Would those clinical students who would like to be considered for a room in the College in September, or early in October, kindly inform the Medical School Office as soon as possible.

C. G. BAKER,
Warden.

F. BOCQUET BULL

Mr. Warner writes :—

Frank Bocquet Bull died in Worthing at the age of 82 years, after a long period of poor health which had necessitated his admission to his old hospital on several occasions.

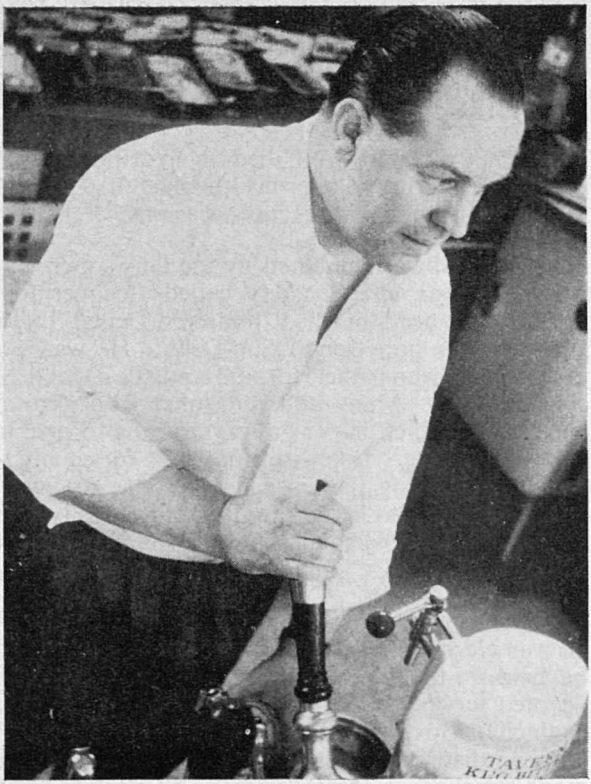
He will be remembered by the Guy's men who knew him and by whom he was affectionately called Bocquet for his service to the Hospital as head of the Children's Dental Department and to the School as its first Dental Sub-Dean. He was a man of the highest integrity, to whom the Hospital and the Dental School were the first consideration. Many will remember with gratitude the friendly and wise advice which he was always willing to give to both students and colleagues alike. Likewise none will forget his untiring devotion to the School during the early days of the last war during the evacuation of the Dental School to Tunbridge Wells at a time when he lived at Worthing and when travelling in the "black-out" presented so many problems.

His experience and his wise counsel were further recognised when he was elected to the Council of the Protection Society, a post which he held at the time of his death. In recognition of his long and devoted service to the Dental School he was elected a member of the Council of Governors of Guy's Hospital Medical and Dental Schools—another distinction which he retained to the last. In 1948 he was made a Fellow in Dental Surgery by election of the Royal College of Surgeons, which was an honour which he treasured greatly, followed closely by the D.Orth. to which he was elected to show the profession's appreciation of his distinguished services to orthodontics during his earlier days.

The writer remembers him as a great reader and critic. He was an ardent admirer of the works of Dickens, of which his knowledge was profound. He was interested in the history of the City of London and loved to recall the developments which had occurred during his lifetime. His powers of conversation made him a much sought-after companion and many have listened enthralled to his reminiscences. He was an enthusiastic member of the Surrey County Cricket Club. It was his great joy to watch his favourite team playing the sport which he most enjoyed. Even to the end he took every opportunity to watch cricket on television. He never married; his family responsibilities were heavy during a large part of his life and did not cease until the death of his sister a few months before his own.

By the death of Bocquet Bull, Guy's Hospital and Schools have lost one of their most devoted sons—his memory will remain affectionately in the minds of those who were privileged to know and to work with him.

Pubs of Guy's



Ye Olde King's Head

For 455 years an inn has graced a site off Borough High Street, and although it has outwardly changed over the centuries, it has always fulfilled the same function. It was " Formerly known as the Popes hed, now as le Kynges hed, abutting on the highway called Longe Southwarke"; the Reformation could not even tolerate a Papist pub. William le Pewterer was one of the first landlords and the end of the original building came in 1676 when it was consumed in the conflagration which rendered 10,000 of the local people homeless. It was during the reign of the Stuart, Charles II, that a new inn was built, and it was to stand for more than 200 years before being replaced by the present building in 1885. It was a galleried building serving as stables, hostel and inn to travellers on the coach road to the Cinque Ports. In the yard chickens pecked at the straw-covered cobbles while a beshawled woman went mutely on her way in the shadows.

After wartime naval service, James Marsh took over tenancy of The King's Head from Harry and Tilly Chapman, and it was 1948; beer cost 1s. 3d. per pint and the only regular customer was Long John, Guy's head porter. Trade expanded as Guy's students, men on the services rehabilitation scheme, began to be attracted by Betty's cooking and beer, to which they helped themselves. Jazz sessions were held by the Stompers in an upstairs room, but a high examination failure rate amongst members of the group caused its dissolution. A pin-machine provided then, as it still does, a chance to pit one's dexterity against the mechanical inflexibility of something that is unbeatable and beyond corruption and caress.

The food is probably the cheapest to be had around Guy's; it is a Courage and Barclay's house, also selling draught Guinness. Most purses are catered

for with snacks ranging from smoked salmon and a variety of cheeses, to baked beans; all is well served with a variety of portions.

The decor is original and there is a piano on which one can sign one's self as a professional man for the first time—memories of the table in the Ship and Shovel. The clientèle is very heterogeneous drawn from the docks, office workers, nearby hop factors and paper workers, as well as the five nearby banks. Beware of managers! All receive the same brusque treatment from Jim, who is really a lovable person in spite of his aggressive exterior. He is a member of the National Sporting Club and has twice been Chairman of the South Eastern Licensed Victuallers' Association. His wife Betty used to knit pullovers for students in the "good old days", more recently she has invited students to accompany her to Metropolitan Police Balls. The whole place echoes with memories of such men as Simpy and Sputnik, whose legendary capacities "should men to temperance win!"

PAUL BOWDEN

GUY'S HOSPITAL BIENNIAL DINNER

To be held at the Connaught Rooms, Great Queen Street, Kingsway, London, W.C.2, on Friday, 2nd October, 1964, at 7.0 p.m. for 7.30 p.m. Dress —Dinner Jacket. The Chairman will be E. G. Slesinger, Esq., O.B.E., B.Sc., M.S., F.R.C.S. The Biennial Dinner affords the most popular opportunity for old Guy's men and women—medicals and dentals—to meet together and renew the friendships of their student days.

It would be greatly appreciated if those old Guy's men and women who are intending to be present would send in their applications for tickets (£1 15s. each) to the Hon. Secretary, Biennial Dinner, Guy's Hospital, London, S.E.1. Telephone: HOP. 7600, Ext. 341, as soon as possible and, in any case, NOT LATER THAN MONDAY, SEPTEMBER 21st, 1964.

The following acceptances (giving the year of qualification) have been received up to the 28th August, in addition to those published in the last issue of the *Gazette*.

Baker, C. G.	1932	McCall, A. M.	1939
Baker, G. A. E.	1951	Macdonald, I.	1944
Barlow Schofield, J	1930	Maclachlan, E. M.	1929
Boswell, P. R.	1914	Mullally, G. T.	1910
Boulter, P. S.	1955	Munro, I. A. H.	1946
Bowen-Jones, J. A.	1939	Parker, F. G.	1927
Cox, J. A.	1955	Partridge, M. A.	1936
Curnow, R. N.	1910	Porter, N. H.	1949
Dick, H. P.	1939	Ratcliff, R. A.	1932
Dyde, J. A.	1959	Reid, R. G.	1932
Eyears, L. W. S.	1955	Renton, T. W.	1942
Fahey, Mrs. J. M.	1954	Robertson, D. S.	1957
Ford, W. J. Pitt	1941	Robinson, R. E.	1924
Gils, Mrs. B.	1957	Roe, W. P.	1928
Goodfellow, J. W.	1951	Salmon, L. F. W.	1938
Grant, A.	1933	Simons, John	1925
Hore, W. G. R.	1922	Smallshaw, D. B.	1929
Horner, A. S.	1960	Smith, W. H.	1943
Hubble, K. E. E.	1960	Stoll, L. J.	1933
Ireland, T.	1932	Thomas T. Glyn	1951
Irish, D. H.	1932	Thorne, M. G.	1945
Johnson, C. H.	1928	Trusted, H. W.	1946
Joiner, C. L.	1946	Tulley, W. J.	1947
Kelsey Fry, I.	1948	Tweed, W. M. E.	1951
Kendall, J. C. C.	1951	Vaughan, C. B.	1950
Kendall, N. E.	1915	Walter, K. H.	1939
Kilpatrick, F. R.	1933	Warner, Miss J.	1957
Kingsbury, J. G.	1925	Williams, J. D.	1949
Lansdown, P. F. P.	1951		

REVIEWS

RECENT ADVANCES IN MEDICINE

Edited by Barron, Compston and Dawson. J. and A. Churchill. Pp. 440. *Price* paperback 30s., case bound 50s.

Twelve action-packed years ago Beaumont and Dodds wrote the thirteenth edition of this book Now three new editors begin the fourteenth by complimenting the two "Founders" pleasantly, ushering in seventeen contributors and making a simple manifesto, quite worthy of the American Constitution:

" . . . . those subjects in which advances have been most rapid . . . . "
" . . . . to keep the book a reasonable size . . . . "
" . . . . policy in future editions will be to make marked changes in the subjects covered . . . . "

and, may we hope, at intervals shorter than twelve years.

Sixteen contributions occupy 421 pages. Most of these are detailed, comprehensive and worth while. The exception is the cardio-vascular chapter which is humdrum and rather skimmed: surely, as an example, cardiac massage is worth a passing mention?

If the majority of these sections sacrifice fire for facts, this is understandable where such compression is needed. Indeed this comment would be empty if the combination of detailed facts and inspiring qualities had not been achieved in the best chapters of the book. Thus, on the thyroid, the liver, the kidney and the carbohydrates " Recent Advances " is excellent. On " Immunological Function and Auto-Immune Disease " it is better still: in these 32 pages of simple, clear information Dr. Batchelor and Dr. Lessoff have written a passage that is worth the price of the book by itself. For those of my readers who realise that auto-immunity is a concept here to stay but cannot see quite why, this is your answer. Go to it.

No student will fail an examination by neglecting this book, but they will certainly enjoy their medical firms more for reading it. For the Qualified it is both enjoyable and useful; and the paper-back alternative is really very cheap.

C. N. MALLINSON.

DISEASES OF CHILDREN

by Hugh Jolly. Blackwell Scientific Publications. Pp. 586. *Price* 47*s.* 6*d.*

This book fills that inevitable gap between the comprehensive "big" books and the knowledge a senior medical student may be expected to know. The common diseases are treated conventionally with diagnosis and treatment in full, the rarer ones being mentioned with only a short commentary on each. In other chapters a less conventional approach is used, a necessity in all aspects of paediatrics, in which normal development, and mental, emotional, and speech disturbances are discussed. There is a long chapter on congenital malformation, and the initial 75 pages are concerned with the newborn, another area of medicine fallen from the province of obstetrics and gynaecology (as the breast to the general surgeons). The final chapters of the book are on common poisons and a paediatric fluid-drug dosage guide.

Written for medical students and general practitioners alike, it fulfils both functions adequately and as all good medical books should do, stresses appropriately the management of child and parent outside the hospital in real life. The author's experience in West Africa is used with advantage in the illustrations, and the introduction of tropical diseases is done logically, by systems, rather than in a separate chapter. In doing so much in 540 pages, the book inevitably is similar to all books of this size in that presentation is blunt, explanation curtailed, and discursive text, to break the procession of clinical fact, abandoned. An excellent point though is that many photographic illustrations are used, in which the features referred to in the subscripts are all easily seen, even in the X-ray plates, no doubt partly due to the originals, but also to the good printing.

This book can be recommended as a good, full, and up-to-date book on paediatrics for the medical student, though it should be read in small amounts during the two months appointment and not during the two weeks prior to finals.

DENNIS BAINBRIDGE.

AN INTRODUCTION TO ELECTROCARDIOGRAPHY

by L. Schamroth: 2nd Edition. Blackwell Scientific Publications. 1964. Pp. 162. *Price* 20*s*.

It is disappointing to admit the presence of a serious defect in this book because apart from the section on myocardial infarction, it is excellent. The other sections are concise and informative and need and deserve careful reading. The size has been kept reasonable by omitting both a detailed explanation of electrophysiology and a discussion of vectorcardiography, and who is to say that an understanding of either is necessary to any but the specialist.

The section on myocardial infarction is over-simplified and inadequate and space given to the rare disorders of conduction and rhythm could with advantage have been allotted to a fuller discussion of this important subject. No definition of pathological Q waves is given except when found in lead III; there is no mention of the problem of diagnosing myocardial infarction in the presence of the Left Bundle Branch Block; nowhere is it stated that ST elevation may in some leads be normal; most important, in the section on the evolution of the E.C.G. pattern of myocardial infarction there is no suggestion that the appearance of the complete pattern may be delayed for some hours and that serial tracings are often needed to allow a firm diagnosis.

The rest of the book must be praised: this defect prevents wholehearted recommendation.

S. NURICK.

CORRESPONDENCE

General Practice.

SIR, The editorial in the recent issue concerning the proposed levy by the G.P. on his patients needs comment. Of course it is not desirable, nor perhaps even ethical for such a levy on a supposed free service, but we are dealing with a system which itself is unethical.

We are also dealing with a public weaned and wooed on a health service all these years where the best medical and dental treatment is there for the taking.

We are also dealing with a Government which from the time of the Labour Party inception of the scheme is now renowned for its false promises, the veiled hints of better things to come, and the mailed fist treatment for trivial offences.

The public reaction to this service is to complain, except when they have had the misfortune to need medical or dental services abroad, then they realise with a shock that things are not so bad over here after all.

But to return to the crux of the matter, is it such a terrible crime for the public living in an era of an average wage exceeding £16 a week (£7 10s. 0d. in 1948), to pay a small sum for a doctor's visit late at night?

If the old age pensioner and those on national assistance, were exempt, no one could give the age old Socialist battle cry, " It's hitting the poor".

It *might* make the public appreciate their doctor a little more, realise he, too, is human and needs rest, and, wishful thinking perhaps, even make the public respect their G.P. as a professional man.

I am not, of course, a doctor, but a member of a profession even lower in the public eye.

I plead guilty to being a dentist.

Yours, etc.,

L. B. LUX.

Kintore,
Ashley Road,
Hale, Altrincham.

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SPORT

CRICKET

The season wound up on rather a disappointing note with two heavy losses against O.As. and Addiscombe. The long lay-off seemed to have taken its toll and the side looked rather out of practice. Against the O.A's. some extremely bad fielding and catching contributed towards the large total—both the opening batsmen being dropped before they had scored. Tolhurst, after having had five "lives", batted well until he was bowled by the first ball of Walter's second spell for 95. Guy's were eventually asked to score 214 to win in 130 minutes.

The Guy's innings started badly and only Biggs and Walter showed up the inadequacies of the opposition's bowling attack. The former batting in a very restrained manner was rarely in difficulty, and Walter drove very powerfully off the front foot. Biggs was finally out from a towering hit which was caught in the deep after he had made 68, and Walter was unbeaten with 25 not out.

Against Addiscombe, a fixture reinstated after a lapse of several years, the side suffered their heaviest defeat for some time. The Hospital started well until Myall was bowled without offering a stroke. The turning point of the game came just before lunch when Hambleton was well caught, and Walter—promoted in the order—were out off consecutive balls. Powell-Jackson, playing his late cut with the usual aplomb, scored a valuable 39, and when he departed, Guy's were in trouble at 111—8. However, Price and Knott temporarily held things together until Knott was bowled trying to hit across the line with the total at 154. A startled Brown was soon given out lbw with one further run scored to leave Price undefeated with 28 not out.

Houghton, the Addiscombe opening bat, played brilliantly for an unbeaten innings of 97, which was perhaps one of the best innings of the season seen against Guy's. In both these games Guy's were badly in need of their leg-spinners, who unfortunately were away on holiday—the limitations of the bowling attack being fully exposed.

RUGBY

The 121st season of the Rugby Club commences on Saturday, September 12th, with the traditional opening fixture against, once, Catford Bridge R.F.C., now, through reasons of local politics, Bromley R.F.C. The Club has lost the services of D. A. Biggs, on the wing, J. C. Thomas in the centre, and E. S. Price as hooker. D. Hendrick, who has recently had a surgical repair of a damaged shoulder, will unfortunately also miss most of the season. The Club is fortunate in having an array of talent in the "A" and Junior XVs, however, and with rumours of a few experienced players arriving from elsewhere, the first fifteen should not lose strength. With most of the side gaining in stature and experience, the fifteen should emulate its ten victories of last season and could well bring home the Cup!

The coming season is of added interest with the introduction of " the new laws". These changes in the laws are hopefully designed to make the game faster, with more running, attacking football. In anticipation of these innovations, several members of the Club have been training hard for some time and have undertaken a four-day training session at The Thatchings. In order to become further acquainted with the changes, a friendly game was organised against St. Bartholomew's Hospital. This game also acted as a Club trial.

The 1st XV fixture list shows a number of changes from last season. London Welsh have disappeared, as have Rosslyn Park, from whom an explanation has not yet been forthcoming. Fixtures are renewed with Esher, Old Alleynians and Pontypridd, and additions to the list involve Buckinghamshire County R.F.C.,

Barclays in Southwark

We first opened a branch in Southwark in 1905, and after half a century of developing business, we opened, in 1957, new and larger premises, a few doors from the old building, at

29 Borough High Street

The Manager there is Mr. P. M. Cox, and he will be happy to welcome customers and visitors and to place at their disposal our complete range of banking services.

BARCLAYS BANK

Money is our business

as a mid-week fixture, and the Old Paulines. The "A" XV commence their fixtures on September 12th against Bromley "A". The Ex.A. start on September 26th, and the remaining fifteens commence on October 10th. A Senior fifteen will play The Medical Sickness Society R.F.C. on Wednesday, September 16th, at H.O.P

Early fixtures are:—

Sept. 12.—Bromley at H.O.P. Kick-off 3.00.
„ 19.—Blackheath at Blackheath. Kick-off 3.00.
„ 24.—Cambridge at Cambridge. Kick-off 5.00.
„ 26.—Old Askeans at H.O.P. Kick-off 3.00.

Oct. 3.—U.S., Portsmouth, at H.O.P. Kick-off 3.00.
„ 10.—Cambridge University at Cambridge. Kick-off 3.00.
„ 14.—Met. Police at H.O.P. Kick-off 3.00.
„ 17.—Bedford at Bedford. Kick-off 3.00.

Reports and Results

GUY'S v. OLD ALLEYNIANS

At Dulwich Saturday, 22nd August, 1964
Result: lost by 95 runs

O.A's, 214—4 dec.
Guy's, 119. (D. Biggs, 68.)

GUY'S v. ADDISCOMBE

Guy's, 155. (J. Powell-Jackson, 39.)
Addiscombe, 156—1. (R. Houghton, 97 n.o.)

GUY'S v. ADDISCOMBE

At Addiscombe Sunday, 23rd August, 1964
Result: lost by 9 wickets

The game started at 11.30, for the majority of the players in the first contest between the two clubs for some years. Fortunately the toss was won and Guy's opening pair slowly saw the shine off the new ball; MacGregor displayed unusual aggression throughout his fluent innings. Hambleton, however, was contained and watchful until bowled an inviting "beamer" just before lunch, which he struck smartly into extra cover's left hand. Walter, promoted after a number of good innings, didn't survive a delivery. Lunch.

Powell-Jackson, though admitting lack of practice, held the Guy's team together, only Price and Knott giving support. The home team were left to score 155 at a run a minute.

Knott and Walter opened the bowling, and re-appeared at regular intervals throughout the afternoon. MacGregor, Davoodbhoy, and Hambleton all tried in their own ways to dislodge the Addiscombe batsmen. Between them they succeeded once, but otherwise provided Houghton with twenty fours in an innings of ninety-seven. The fielding was good, even the more portly members showing an above average degree of agility.

Not a game to remember, but a hard one to forget.

R. W. T. MYALL

HOSPITAL INFORMATION

JUNIOR STAFF APPOINTMENTS

The following appointments and re-appointments have been made by the Board of Governors for the period beginning October 1st, 1964:—

WHOLE-TIME APPOINTMENTS

MEDICAL

Medical Registrars
Dr. J. A. P. Trafford
Dr. R. K. Knight
Dr. D. A. Lillicrap
Dr. G. M. Davies
Dr. I. D. B. Rennie
Dr. J. R. R. Spurrell
Dr. C. N. Mallinson

Junior Medical Registrars
Dr. R. N. Maini
Dr. S. R. Meadow
Dr. J. E. C. Hern
Dr. A S. Russell

Surgical Registrars
Mr. J. D. Maynard
Mr. I. McColl
Mr. J. C. Gazet
Mr. S. A. R. Cooke
Mr. R. Feneley
Mr. B. A. Ross

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Mr. J. W. S. Rickett
Mr. J. R. W. Gumpert

Obstetric Registrars
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Dr. P. A. Emerson
Dr. N. A. Simmons
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Dr. B. R. P. Murray
Dr. B. Geffin
Dr. J. J. Maher
Dr. W. J. W. Siddall
Dr. R. R. Watkin

PART-TIME APPOINTMENTS

Registrars in the Ophthalmic Department
—

Registrars in V.D. Department
Dr. I. S. Moss
Dr. J. J. Rohatiner

PART-TIME APPOINTMENTS
DENTAL

Registrars in the Children's Department
Mr. P. M. Benzies
Mr. J. Metcalf

Orthodontic Assistant
Mr. J. Metcalf

Registrars in Clinical Dental Surgery
Mr. J. N. James

Registrar in Minor Oral Surgery
Miss A. Peters

Registrars in Preventive Dentistry
Mr. J. M. McCormack
Miss D. R. Butwick
Mr. D. G. Stone
Mr. B. B. Warren
Miss D. E. R. Cornick
Mr. M. A. Gillon

Registrars in Dental Prosthetics
Mr. H. K. Kemp
Mr. B. Penhall
Mr. A. J. Stewart
Mr. P. B. Morris
Mr. B. Matthews

Registrars in Conservative Dental Surgery
Mr. G. T. Cheney
Mr. J. E. St. Pierre
Mr. B. D. Glynn
Mr. D. H. Griffiths
Mr. A. J. Simons
Mr. I. A. Stuart
Mr. S. G. Adamson
Mr. D. F. Howard
Mr. R. B. Johns
Mrs. P. Wilson

Registrar in Dental Radiology
Mr. G. T. Cheney

Dental Officer to treat In-Patients and to Salomons Centre
Miss P. T. Fuller

BIRTHS

JOHNSON.—On 13th August, 1964, at 25, South Eden Park Road, Beckenham, to David and Sue Johnson, a son (Andrew), a brother for Jacqueline and Christine.

MISSEN.—On August 6th, at Chelmsford, to Hedley and Mary Missen, a son, Peter James, a brother for Andrew.

TUDDENHAM.—On 14th July, 1964, to Jean (née Richards, S.R.N.) and Malcolm Tuddenham, a son, Roger Mark, a brother for Stephen.

CHANGE OF ADDRESS

Omitted from issue dated 22nd August, 1964:

Mr. and Mrs. I. McColl. Townley 3084.

GUY'S HOSPITAL GAZETTE

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Editors *T. C. Davis*
B. H. Hicks

Sports Correspondent *N. J. Knott*

Guy's Hospital, London

PASSIM

Press Gang

The Press has been blowing its trumpets loud this week, with the appearance on Tuesday of a new solar daily. The more we were told of the expense in advertising the new paper, the less we were impressed by the grandeur of its début. It will be judged, critically and soon, by its content.

Older established, though hardly mature, newspapers did nothing to win us to their side. Distinguished men of the profession deserve more from society than to have their personal affairs smeared over the front pages of a national newspaper, as even circulation-hungry editors should realise. But public service is a concept that many news-editors have long forgotten, and only writers of advertising copy churn out the phrase *ad nauseam*, so perhaps gratitude is not to be expected.

It is assumed that the Press doctors, the medical columnists, are at least more sincere in their endeavours. They have a difficult task to perform well, and unfortunately the performance is not always first-class. A recent column blithely informed readers that anti-coagulant therapy following cardiac infarction carried a 5% mortality. It listed twelve side-effects of Dindevan. Besides the roughness and dubious validity of the estimates, and hopeless bias to the opinion, this was an example of grossly irresponsible writing. Besides misrepresenting the whole problem, a controversial one, this statement caused great anxiety to many patients, relatives and patients-to-be, and further infringed on the physician's absolute right to the confidence of his patient. As an isolated article it will pass and be forgotten, but many of these columns cause anxiety on similar grounds. This is not to decry the useful function performed by a proportion of these writers, but to hope that more may reach their standards.

Medical Education

For some months the medical journals have hummed with the controversy surrounding medical education; whether we are furnishing the doctor of to-morrow with what he will need for "practice", general or specialised? It is easy to take up an aligned position with little thought and then say as Shakespeare's Antony :

> "Now let it work : mischief, thou art afoot
> Take thou what course thou wilt!"

We thought it would be very easy to form a considered opinion from the views of individuals we had invited to write on this subject but found after a little while that there was no keystone around which we could indeed build this considered opinion. What is needed is a cogent dictum of what is needed from a doctor in this country in the second half of the twentieth century. Once we have this idea then all the other credos can be related to it and a general organized picture

of medical education to-day can be built. With this end in view we have invited an eminent medical man, not from Guy's, to write just this and from there on we can work. His article will be appearing in the *Gazette* in the very near future and will be followed by isolate views from people at Guy's involved in the education of to-morrow's doctor and from doctors in General Practice who may consider that not enough light onto their speciality is shed by to-day's teaching.

One attractive aspect of the present curriculum at Guy's is the provision of special appointments for students who are nearing the end of their studies. So many specialities are offered to the student that two "specials" are probably the minimum of what is needed (thinks the student). He then often has the opportunity to leave Guy's for a short time and see his own chosen subject of the moment, intensively covered by new faces in different surroundings. There may be a different slant but this will encourage him to sift opinions and to think for himself. All in all it will take much effort not to find it stimulating.

A "mailbag" letter in a certain "ladies' " magazine told its readers that in 1916 nurses "had one day off each month, four hours on Sunday and a short break each day". Their hours were from 7.30 a.m. to 9.0 p.m., and "we were never allowed out in the evening, and for this the pay was only £1 a month". Whether we think of nurses as charming, somewhat ephemeral vistas in white (or purple stripes) or something else, they still work hard and long and for little remuneration. However, the *Gazette* is a hospital magazine and too little is heard from them. We can't believe that the Platt Report has been received only in quiet and cooing admiration. We are here, ever open as a forum for opinion, and we do consider any contribution.

GUY'S DIARY

SEPTEMBER			
EXHIBITION.			*Surgery of the Neck.*
21st	M.	1.00	MR. SALMON. Clinical Lecture. *Otosclerosis.*
22nd	T.	1.00	MR. BEARD. Clinical Lecture.
24th	Th.	1.00	DR. POTTS. Clinical Lecture. *Hyperbaric Oxygen.*
29th	T.	1.00	DR. JOINER. Clinical Lecture.
OCTOBER			
6th	T.	1.00	DR. MANN. Clinical Lecture.
12th	M.	1.00	Professor BUTTERFIELD. Clinical Lecture.
12th	M.	5.00	DR. E. M. CREAK, M.D., F.R.C.P., D.P.M , will deliver the Sarah Stolz Lecture entitled *"Child Psychiatry Looks Ahead."* Anatomy Theatre.
13th	T.	1.00	MR, ECKHOFF. Clinical Lecture.
15th	Th.	1.00	DR. HARDWICK. Clinical Lecture.

DENTAL RESEARCH AT GUY'S

3. Department of Orthodontics

Investigations into the aetiology and prevention of dental caries have been described in a previous issue. The Children's Department has worked in the closest possible liaison with the Department of Preventive Dentistry in this aspect. The research to be described here is centred around the study of facial growth and factors influencing malformation of the jaws and dentition.

Serial Study of the Variations in Facial Development

The stimulus for this work originated in the Upper Respiratory Research Unit, which was housed in the Anatomy Department under the aegis of Mr. R. E. Rix and the late Professor Whillis, and staffed by the author and Mr. E. Gwynne-Evans from 1949 to 1954. Its terms of reference were to study functional defects of the upper respiratory tract in relation to malformation of the jaws and also to make a longitudinal study of "normal" development.

This was carried out by serial skull radiographs and supplemented by a serial study of cine photography of the mouth's functional development. Serial plaster models of the dentition were also taken. All the skull radiographs were taken in a cephalostat of the type developed by Dr. Broadbent (1931) with a constant target-film distance of five feet. Fig. 1 illustrates the way in which the tracings of the radiographs are superimposed on a central point below the sella turcica and orientated to a plane from the nasion to the occiput.

Since 1954 this work has been continued in the Dental School and many children have been studied from the age of eight to eighteen years. Unfortunately, the length of these studies makes for a large wastage, due to children failing appointments and leaving London. Some of the subjects have received orthodontic treatment and others have been observed without treatment. Fig. 2 illustrates one of the cases which has been followed from the age of seven to sixteen years showing the effects of orthodontic treatment and long-term result.

Some dental irregularities have been found to improve naturally to the point of becoming both functionally and aesthetically acceptable. This is one of the factors responsible for setting the modern trend in the timing of treatment. Orthodontic treat-

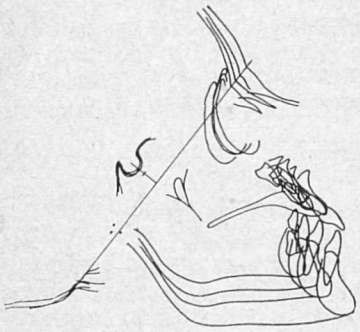

Fig. 1. An example of the method of super-imposing serial tracings of lateral skull radiographs to show the facial growth pattern.

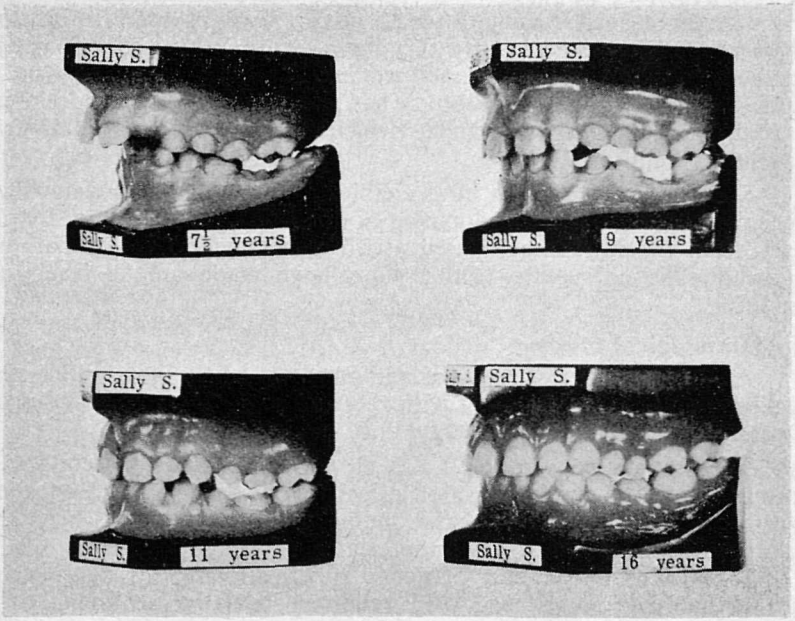

Fig. 2.—(a) Serial study models showing the results of orthodontic treatment and the long-term result.

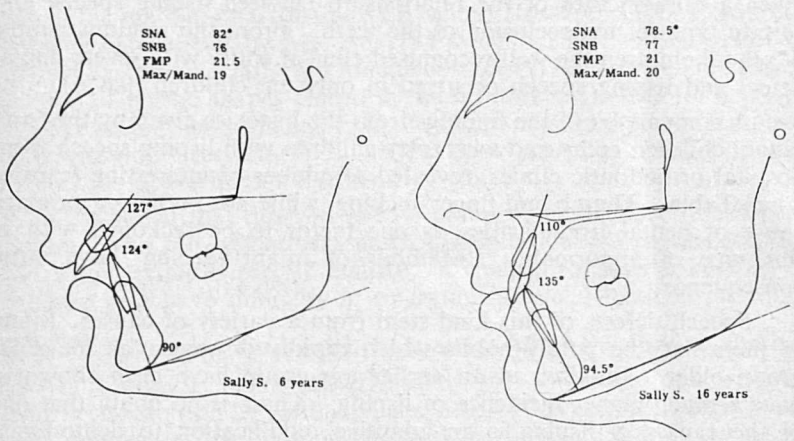

Fig. 2.—(b) Serial tracings showing the results of orthodontic treatment and the long-term result.

ment may not be started until ten to twelve years of age in order to shorten appliance therapy. By this age a clearer picture of the need for active treatment can be obtained and the delay in no way prejudices the final result. This study has also demonstrated the infinite variation in facial development which can produce a relatively "normal" dentition.

The serial cine studies have enabled a film to be made showing "normal" milestones in development of oral function. This is a useful basis from which to assess patients with gross functional disturbances in swallowing or speech. Other films have made unique teaching material.

Epidemiological Study

An epidemiological study of malformation of the jaws and teeth has been made in conjunction with the work of Professor Emslie and Doctor Naylor in the mobile dental unit.

The sample consists of 1,500 eleven-year-old school children, forming an excellent cross-section of schools in South-East, East and North-East London. One of the findings of this survey has been to establish the need for orthodontic treatment. Of the children seen, 27.5% required some form of active treatment and this figure was further analysed as follows:—7% required specialist treatment, 8% could be treated by the General Dental Practitioner with consultant advice, 12.5% could be treated by the General Dental Practitioner with a special interest in orthodontics.

Another aspect of this study was to examine the relationship between certain speech defects and malformation of the teeth. Forty children (2.4% of the sample) were found to have lisping speech. Twelve of these had normal dentitions. Data obtained previously from patients attending hospital clinics for orthodontic treatment has given a false picture of the relationship between lisping speech and certain types of malocclusion of the teeth. From the random sample of school children the well-recognised clinical entity with severe dental defect and lisping speech occurred in only ten children (0.6%).

A comparison of the findings from the histories given by the forty school children compared with forty children with lisping speech from hospital orthodontic clinics, revealed a number of interesting features —see Table. Thumb and finger sucking, while not perhaps a primary cause of dental irregularities, is one factor to be reckoned with in this type of abnormality. Methods of infant feeding have little consequence.

Speech defects of this kind stem from a variety of causes. Many of them may be purely habits which rapidly disappear as the child grows older. Children in an earlier age-group have been shown to have a much higher incidence of lisping. There is no doubt that one of the causes of lisping is an adaptive modification to dento-facial defects. This type will improve if the abnormality of the dentition does not involve a marked mal-relationship of the jaws and is capable of being treated. In certain cases there is evidence to suggest that there may be a minor defect in the central nervous system which has

	HOSPITAL SAMPLE per cent. A	SCHOOL SAMPLE per cent. B
Feeding difficulties	8	—
Bottle-fed only	32·5	29·5
Breast-fed only	35	29:5
Bottle and Breast	32·5	41
Late Talkers	5·4	6
Late Walkers	—	—
Persistent colds and catarrh	30	27
Sucking habits beyond 6 years	60	20
Family history of Lisp	30	26:5

TABLE: Data derived from the histories of two groups of 40 lisping children.
(a) from Hospital clinics.
(b) from a random sample of school-children.

a familial basis. It must be emphasised that defective "S" sounds can be found in the presence of perfect dentition and many malocclusions with adverse incisor position and open bite have perfect speech. There is no simple cause-and-effect relationship in every case.

Tests for oral sensory discrimination

Developing out of the work on speech defects, a study is being made of sensory discrimination and stereognosis in the mouth. This investigation follows similar work started by Dr. Grossman and Dr. Bosma at the National Institute of Dental Research in Bethesda and is being carried out by Mr. Robert Fawcus. Little is known of the sensory factors in relation to tongue control. The tests include identification of plastic shapes placed in the front of the mouth for a period of three seconds and the counting of raised spots on a plastic template, using the tip of the tongue. This device is placed in a fixed position behind the upper incisor teeth.

It is hoped that this will have a practical significance in assessing children who fail to perform normal speech sounds, particularly the "S" which requires precise control. It may also have a bearing on patients who have difficulty in tolerating artificial teeth in later life.

Cine Radiographic studies of the movement of the tongue and lips

This study is being carried out by Mr. P. M. Benzies, with the kind permission of Dr. Hill and the help of his technical staff. The work follows on the classical study by Ardran and Kemp (1954).

Movements of the tongue and lips, with particular reference to swallowing and speech, are being studied using image intensifiers. The Phillips' 5in. Image Intensifier uses X-rays from a constant

potential generator. The pictures are recorded on an Arriflex 35 mm. camera at 24 frames per second and the film reproduced in 16 mm. The use of a device worked by the camera shutter reduces the X-rays' flow to the time when the film is actually exposed.

The Marconi television apparatus has also been used. This allows a longer exposure of film, but so far the quality of reproduction on 16 mm. film is not as good as that obtained with the Phillips' apparatus. However, the controls on the television system give advantages of changing magnification and intensity without variation of X-ray doses.

The film is projected on to a pad of tracing paper, using a Bell and Howell analysing projector. This is a most laborious technique as individual frames have to be traced and superimposed on the fixed outline of the maxilla.

To date, the findings show a considerable variation within the range of normal movements of the tongue and lips in both speech and swallowing, just as there is considerable variation in the facial skeleton with a normal dentition. These findings may be used as a base-line to examine abnormalities in swallowing and speech behaviour by this technique.

Assessment of the forces acting upon teeth from the soft tissues of the mouth

Various electronic methods have been used in the department over the last ten years to study the functional movements of the mandible. The conclusions reached from electromyographic studies of the muscles of mastication again emphasise the variation in "normal" function described in most standard textbooks of physiology.

One important facet of this is the study of the effects of tongue and lip movements on the position of the teeth, superimposed as they are in the alveolar bone on the basic skeleton of the jaws.

A system has been developed by Mr. J. K. Luffingham (M.R.C. Research Assistant attached to the Department) for recording muscle pressures acting directly upon the crowns of the teeth. A small pick-up is attached to the buccal and lingual surface of a tooth using a waterproof adhesive. It consists of a small electro-pneumatic switch of 4 mm. diameter and 1.5 mm. thickness, on which a rubber diaphragm is inflated intermittently by compressed air. Because movement of the diaphragm breaks an electrical circuit and cuts off the gas pressure, the diaphragm tends to vibrate at approximately 100 cycles per second. The pressure inside the switch oscillates about the pressure which is applied to the outside of the diaphragm. This fluctuating pressure may be read, smoothed electrically and applied to a photo-galvanometer.

This technique supersedes other methods of using sensitive transducers applied directly to the tooth where there are difficulties in insulating and controlling temperature changes.

The small pick-up can be cemented directly to the tooth without the preparation of any special mounting. Recordings are made from the buccal and lingual surfaces of selected teeth during speech, swallowing and while at rest.

So far, the results confirm the findings of Winders (1956) that the tongue has a more definite influence than the lips in moulding dental arch form. There is considerable individual variation which is not necessarily related to the form of the dental arches. It also shows that the continuous light resting pressures exerted by the soft tissues are likely to be more important than the transient, more powerful movements during function and emphasises the fact that the soft tissues of the tongue, lips and cheeks may act more in the nature of a rubber mould into which the teeth and alveolar process develop.

This investigation is posing considerable problems in producing data which can be handled statistically, emphasising again the infinite variations of the facial complex.

Problems related to impacted wisdom teeth and other impacted teeth in the mouth

In the British Isles, impaction of wisdom teeth is a very common problem. Their partial eruption may foster infection with consequent trismus and considerable discomfort. The jaws are frequently too short antero-posteriorly to accommodate all the teeth in good alignment. The lower incisors may become increasingly crowded if the wisdom teeth are able to erupt.

Only ten per cent of a large adult sample revealed a full complement of well-placed teeth in the mandibular arch at the age of 20. Mr. B. S. Cryer is investigating the "normal" and abnormal paths of eruption of the third molars by serial radiographs and relating this to the form of the lower dental arch.

As a therapeutic measure, lower second molars are being extracted between the ages of twelve and fourteen years with the idea of:—

(a) preventing impaction of the third molar;

(b) preventing any deterioration in lower incisor position and, in fact, attempting to produce some improvement;

(c) allowing impacted second pre-molars to erupt without surgical interference.

This work was initiated by Mr. R. E. Rix following excellent results which he has achieved in this field. In a certain group of patients, impactions can definitely be prevented by timely extraction of second molars and a premolar will push itself into position in the arch without recourse to appliances to move the adjacent teeth.

This type of result encourages wide acceptance of this treatment, but there is no doubt that in some patients, where the third molar is

very tilted in its developmental position, the extraction of the second molar will not disimpact it, or it may erupt in a very adverse position.

The possibilities of therapeutic extraction of the second molar have to be balanced against the results obtained by waiting until impaction occurs and the third molar has to be surgically extracted. A series of 100 cases is being collected where the extraction of the second molars has been carried out. The results of these are being studied over a five-year period to build up data as an aid to prognosis.

We would like to thank Mr. R. E. Rix and Mr. K. E. Pringle for their advice and encouragement in all these projects and for allowing us to use data from patients under their care in various aspects of the clinical research.

W. J. TULLEY.

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GWYNNE-EVANS, E. and TULLEY, W. J. (1955)—Dent. Practit. 6.22.
ARDRAN, G. M. and KEMP, F. H. (1954). Proc. R. Soc. Med. 44-1038.
WINDERS, R. V. (1956). Am. Journ. Orthodont. 42-645.

REVIEW

THE BIOCHEMICAL APPROACH TO LIFE.

By F. R. Jevons, George Allen and Unwin, London, 1964. Pp. 184. *Price* 28*s*. 6*d*.

This well and, in many places, amusingly written book is designed primarily for those with a general scientific background who wish to know what the relatively new science of biochemistry is about. As such it fills a place in this field, which is filled in physics, chemistry and biology by the school curriculum.

There is an excellent historical background to all the topics discussed, which makes the book interesting and valuable reading for biochemists. It is a pity that no bibliography is included.

Dr. Jevons' enthusiasm for his subject is apparent. Many biochemical concepts and details which would be quite new and difficult to those not familiar with the subject are explained lucidly, with many helpful analogies drawn from everyday situations. Almost all aspects of biochemistry are covered with the regrettable exception of any mention of the steriods or the action of hormones.

The relationship between what biological extracts will do in a test tube and what happens in the complex, highly organised whole animal is examined. The dangers of applying *in vitro* events to the whole animal are emphasised again and again. But as Dr. Jevons says, the distinction must be made between what *does* happen and what *might* happen.

This is an excellent book and should be enjoyed by all who have an interest in what life is and how it works.

MARGARET WHICHELOW.

NOTICE

Retirement of Mr. L. A. Westwood

Mr. L. A. Westwood, Head Technician in this Department, will be retiring at the end of September after 50 years' service in the Hospital and School. I feel sure that many of us would like to mark this occasion by a suitable presentation, and all those who wish to be associated with this are invited to send their contributions to me by the end of October, if possible.

J. M ROBSON.

Pharmacology Department,
Guy's Hospital Medical School.

The Development of Anaesthesia

De Insensibilitate, Part II

J. J. MAHER and M. W. POTTS

It is convenient at this stage to consider some further historical scientific advancements which had been made but had since lain undeveloped or unheeded: these would find application in the general progress of medicine but especially in anaesthesia.

William Harvey, as is well known, made an outstanding contribution to Medicine by his demonstration in 1628 of the circulation of blood; this knowledge was a necessary precursor to intravenous drug administration, and soon an attempt along these lines was made by Sir Christopher Wren in 1656, though it should be noted that not until 1853 did Alexander Wood, of Edinburgh, invent a hypodermic needle, and Pravaz of Lyon, a glass syringe.

In Biblical times Elisha revived the child of the Shunammite woman by a method akin to, if not identical with, the modern technique of mouth-to-mouth expired air resuscitation; considerable elaboration of the above method was perhaps first carried out by Paracelsus in the 16th century when he inflated the lungs of an asphyxiated subject by means of a bellows connected with a tube in the mouth.

Soon afterwards Vesalius, in 1555, using a primitive kind of tracheostomy tube and inflating the lungs, kept animals alive despite his opening of their chest cavities; moreover he was the first to describe the appearance of a fibrillating heart and made the first attempt at manual resuscitation of the arrested heart in animals; in 1902 Starling and Arbuthnot Lane were to report the first case of successful internal cardiac massage following reflex inhibition of the heart during ether anaesthesia.

Robert Hooke, Curator of the Royal Society, repeated such experiments in 1667 and, additionally, was able to conclude from his observations that the movement of the lungs was not primarily to promote circulation of blood but rather permitted access to that fluid of fresh air; indeed, Hooke had suggested an attempt at replacement of the lungs by a container which would allow exposure of blood to air; in so proposing he came close to anticipating the principle of extra-corporeal circulation.

The Society for the Recovery of Drowned Persons, instituted in Amsterdam in 1767, and the other European counterparts such as the Royal Humane Society, originally founded in 1774, did much to stimulate continued research into artificial lung ventilation through a variety of masks and airway tubes.

Among the many who thus contributed was James Curry, of this hospital, who devised an intra-laryngeal cannula in 1791 and who wrote two papers of observations upon apparent death from drowning.

In 1806, Sertürner had isolated morphine from opium, and this was the first of many alkaloids which were to find anaesthetic applications.

The synthesis of chloroform was performed independently in 1831 by von Liebig in Germany, Soubeiran in France and Guthrie in the United States.

In the first part of our account of the early history of anaesthesia the dominant theme stressed was the emergence of inhalational narcosis which was to culminate in the successful demonstrations of 1846 and thenceforward remain predominant for about thirty years.

The first method, perfected by Morton, of presenting the narcotic agent to a patient, was by means of a glass bottle containing an ether-soaked sponge; air which had passed through the sponge was inhaled from a mouth piece, and unidirectional gas flow was ingeniously obtained by the use of inspiratory and expiratory valves. Numerous other such methods were devised in succeeding years. The simplest and most commonly used in this country was that of holding close to the face a cloth, shaped as a cone or mask and soaked in ether; during inspiration, air, drawn through the material, vaporised some anaesthetic which was replenished by further drops of ether from a bottle.

During the anaesthetic boom-years from 1846 up to at least the death of John Snow in 1858, many enthusiasts were prospecting for a strike in the form of additional and perhaps more ideal inhalational narcotic agents than ether. Amongst those so engaged was Sir James Young Simpson, professor of Midwifery at Edinburgh; having been quick to introduce ether in obstetrics in 1847, he successfully introduced chloroform for the same purpose later that year on the advice of a Liverpool chemist named Waldie.

Due principally to the potent action of the drug and ease of inhalation by the patient, chloroform rapidly achieved major acceptance despite the recognition that use of it was associated with an occasional inexplicable death. The first such victim has remained the most well known; it was but three months from the introduction of this agent that Hannah Greener, at Winlayton, County Durham, fell suddenly upon the deepest sleep.

For many ensuing years such tragedies were with persistence attributed to drug overdosage so that efforts were concentrated upon the design of suitable inhalers: amongst the most famous, cautious and successful administrators of chloroform, was Joseph Clover, Lecturer in Anaesthetics at University College Hospital, who devised an apparatus enabling known concentrations of chloroform in air to be accurately given (See Plate III).

It was a matter of 63 years from Hannah Greener's death before the prosecution case against chloroform was finally proven when Goodman Levy, at one time anaesthetist to Guy's Hospital, published "A cardiac reaction of adrenalin in chloroformed subjects", following his demonstration that light chloroform anaesthesia in the presence of excess adrenaline provoked ventricular fibrillation. The means by which the crime had repeatedly been committed had at last been uncovered.

It must be recalled that the earliest demonstration of anaesthesia using nitrous oxide had lacked the impact of total success, nor was the gas to gain widespread acceptance for some time yet; moreover it was not until this time that the advantages of the addition of oxygen would become apparent and hasten the use of that gas also.

So it was that, in England at any rate, until about 1877 the standard type of apparatus remained unsophisticated; essentially the patient continued to respire air during anaesthesia and a proportion of this was drawn over or through either chloroform or ether contained in a bottle or bag; in point of fact the choice of narcotic was increased when, in 1862, George Harley introduced a mixture of alcohol, chloroform and ether, about which combination perhaps the most important retrospective observation is that it was a successful means of diluting chloroform.

F. E. Junker, a German surgeon on the staff of the Samaritan Free Hospital, London, in 1867 devised a draw-over inhaler which enabled the anaesthetist to increase the inhaled concentration by pumping a hand bellows or bulb; this inhaler, with successive modifications, was to remain in use for the ensuing fifty years.

We have recently seen the diary of a young man who was a surgical patient in Naaman ward during 1892-93 and who had sustained a fractured patella.

This young man gave graphic accounts of emergency surgical operations performed in the ward and took a lively interest in surgical instruments and appliances; nonetheless the only illustration which he chose to make in his journal was a sketch of a draw-over inhaler which would appear to be of the Junker type (See Plate IV).

Plate III. Joseph Clover administering chloroform vapour

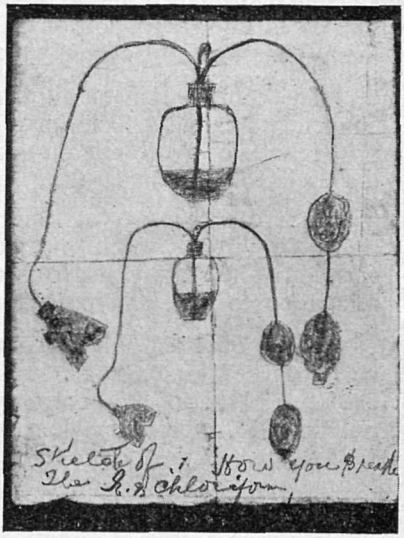

Plate IV. A sketch of a Junker Inhaler

Subjective impressions about anaesthesia at this time are probably rare and so this patient's account is of some interest. "He placed the dreaded bag over my face I breathed once or twice. It was too strong. I struggled and got away from him . . . I laid down again and soon I felt the bag again, and also breathed that Horrid (Ether) . . . Godson said to me, you are going very nicely now, breathe Gently, with that I felt him open my left eye . . . then came the Crash and the pleasant feelings. . . ."

An ambivalence of attitude towards narcosis, displayed in this delightfully naïve account, is one which has stubbornly recurred despite the progress of the first hundred years of anaesthesia.

Passing reference has already been made to John Snow, who was Anaesthetist to St. George's and University College Hospital; this man has been generally regarded as one of the outstanding figures in the speciality: in addition to his publications on ether, chloroform, curare and vaporisers, he brought the ultimate in fame and acceptance to anaesthesia when he administered chloroform to Queen Victoria for the birth of Prince Leopold in 1853.

So far we have traced the establishment of ether and chloroform as well as hinting at the dis-establishment of the latter: the re-introduction of nitrous oxide was long overdue and by 1862 Gardner Quincy Colton in the United States had begun operating a successful dental extraction clinic using this gas. A further boost was provided in 1868 when Andrews of Chicago, administered pure oxygen with nitrous oxide, and by 1877 Clover, in this country, had designed a portable regulator for the delivery of a nitrous oxide, oxygen, ether, sequence. Finally, in 1887, Sir Frederick Hewitt, Anaesthetist to the London Hospital, designed a machine for giving nitrous oxide and oxygen in known proportions; this apparatus was the forerunner of many anaesthetic machines which are in use to-day.

The combination of nitrous oxide and oxygen proved to be an eminently suitable vehicle for the carriage of volatile narcotic agents; this technique was to remain unchallenged until the clinical advent of a muscle relaxant in 1942.

Whereas the use of chloroform progressively declined, ether possessed virtues which ensured undiminished popularity; together with unrivalled safety, it permitted adequate depth of anaesthesia and relaxation to suit all types of surgery.

As time passed numerous other volatile agents and gases were to be introduced; amongst the most important being cyclopropane, first used by Waters of Wisconsin in 1930, di-vinyl ether by Gelfen and Ball in 1933, trichloroethylene, used first by Striker of Cincinnatti in 1935, later by Langton Hewer of St. Bartholomew's Hospital in 1941, and halothane by Johnson and Bryce-Smith in 1956; in each case the names and dates refer to the clinical introduction.

It is perhaps ironic that ether, which supplanted chloroform, has ceded primacy to halothane, a drug which in many ways bears remark-

able resemblance to chloroform.

The induction of anaesthesia by means of pungent vapours had regularly been a source of distress to patients; in 1872 Oré, professor of physiology at Bordeaux, gave chloral hydrate intravenously to a patient suffering from tetanus, thus demonstrating an alternative route for the administration of narcotics. Despite the synthesis of barbitone by Emil Fischer and von Mering in 1903 and the intravenous administration of such drugs as ether by Buckhardt and procaine by Bier, in 1909, it was not until 1920 that the first barbiturate, somnifane, was given by this route, the administrator being G. Bardet.

From this moment the popularity of the method from the point of view of the patient, together with the production of safer and shorter acting barbiturates, led to a progressive general adoption of intravenous induction to inhalational anaesthesia.

Isolation of the alkaloid Cocaine from the coca plant by Gaedicke in Germany in 1855, provided a starting point for the parallel escalation of a contrasting method of pain relief. In 1884 Karl Koller demonstrated at Heidelberg the analgesic effect of cocaine upon the cornea and the following year William Steward Halsted, in the United States performed the first regional nerve block using this drug. In the same year and country J. L. Corning produced spinal analgesia in a dog, probably whilst performing peridural nerve blocks; it was not, however, until the demonstration of lumbar puncture as a routine procedure by Quincke in Germany, that his fellow-countryman, Auguste Bier, was enabled to introduce spinal analgesia as a contender to general anaesthesia in the production of insensibility.

The inevitable introduction of better alternatives to cocaine, together with refinements of methods and tools, has ensured that this and associated techniques remain in common use.

During a period of time, probably commencing with the end of the Second World War and extending to this day, in this country there has been a marked decline in the application of spinal analgesia. The reasons are complex but, undoubtedly, the occurrence of occasional serious neurological complications which have been the basis of adverse criticism during litigation, has constituted a major deterrent.

However, the technique of extra-dural block and of local or regional infiltration appears, rightly, to have retained common application.

As was only to be expected in the early days of inhalational anaesthesia no particular need was apparent for the maintenance of an unobstructed airway by means other than a simple device to prevent the tongue from falling back. Elaboration of methods and instruments described originally one hundred years earlier in connection with resuscitation of the drowned, resulted finally in the appearance in 1878 of intra-tracheal tubes for anaesthetic purposes; credit for this goes to Sir William Macewen, of Glasgow Royal Infirmary.

Further impetus was given to development of this technique by the abundance of serious facial injuries in the First World War, and

Sir Ivan Magill at East Grinstead became a pre-eminent exponent and developer of intra-tracheal anaesthesia.

Although John Snow earlier and Meltzer and Auer in 1909 were amongst those who had used crude, unstandardised extracts of curare in animals and the drug had been used in the treatment of tetanus as early as 1835, it was not until 1942 that Griffiths and Johnson, of Montreal, used curare in clinical anaesthesia.

The rapid and widespread adoption of this drug was facilitated by the earlier work of Dennis Jackson of Cincinnatti in 1915 and Ralph Waters in 1930, both of whom had made fundamental contributions regarding carbon dioxide absorption and assisted or artificial ventilation.

Detailed description of recent advances must be waived, but mention should perhaps be made of the mechanical lung ventilator which is in direct lineage from those early bellows devices used by Paracelçus. Modifying a machine developed in Germany by Frenckner, Craaford, a thoracic surgeon in Sweden, produced in 1938 the first practical lung ventilator for anaesthetic use during surgery, universal employment of such machines is now an accepted fact, not only in anaesthesia, but by reversion to their originally proposed rôle, in resuscitation.

As with most other specialties, progress during the last 20 years has been very rapid and may be summarised by stating that it is largely concerned with the physiological homeostasis of the patient during anaesthesia.

We have advanced, sometimes laterally, along this tortuous historical path, driving before us a flock of clichés. It is greatly to be hoped that our readers will perceive the track that we thought we took.

ACKNOWLEDGEMENTS.

We freely and gratefully acknowledge a considerable indebtedness to the following authors upon the subjects of medical, anaesthetic and other history, and to the Dean of Hereford for permission to photograph Plate I.

1. *D. Guthrie.* A History of Medicine. Nelson, London. Reprinted 1960.
2. *M. H. Armstrong-Davison.* Chap. 1. " General Anaesthesia." Ed. F. T. Evans and T. C. Gray. Butterworth, London 1959.
3. *F. F. Cartwright.* English Pioneers of Anaesthesia. Wright, Bristol. Marshall, London 1952.
4. *R. H. Robbins.* The Encyclopaedia of Witchcraft and Demonology. Nevill, London 1963.
5. *W. W. Mushin and L. Rendell-Baker.* Principles of Thoracic Anaesthesia. Blackwell, Oxford, 1953.
6. *W. S. Sykes.* Essays on the First Hundred Years of Anaesthesia. Livingstone, Edinburgh, 1961.
7. *Barbara M. Duncum.* The Development of Inhalation Anaesthesia. Oxford Univ. Press, 1947.

We are indebted to Sister Brysson-White for the photograph reproduced in Plate IV.

Erratum: The caption to Plate I was overlooked and should read: " Detail from Mappa Mundi, a Mediaeval (13th century) map preserved in Hereford Cathedral ".

OXFORD UNIVERSITY PRESS

JUST PUBLISHED

Cunningham's Textbook of Anatomy

Edited by G. J. Romanes

Professor of Anatomy in the University of Edinburgh

In preparing this new edition the aim has been to provide a book of reference that, whilst shorter than the full-scale textbooks of the past, is sufficiently comprehensive to cover adequately the structural details of the human body and their functional implications without the need for a special textbook on each subsidiary aspect of the subject. A considerable part of the text has been re-written and the remainder extensively modified so as to achieve an appreciable reduction in overall length without the sacrifice of any necessary material.

The illustrations have been extensively revised, all the old wood-engravings have been replaced by half-tone illustrations, 217 new figures from original drawings have been added and many other illustrations have been redrawn. The larger page size, with 2 columns of text to the page, has enabled many illustrations to be increased considerably in size without divorcing them from the relevant text. The number of radiographs has been increased considerably; they all are new, and form virtually an atlas of normal radiographic anatomy.

Throughout the text the revised Nomina Anatomica published in 1961 has been used. A glossary has been included at the end of the book which gives all the changes from the earlier Birmingham Revision used in the previous edition.

Contributors

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Robert Walmsley, *Bute Professor of Anatomy in the University of St. Andrew's*

G. M. Wyburn, *Regius Professor of Anatomy in the University of Glasgow*

Tenth Edition, *Demy 4to, 1030 pp., 1316 illustrations (500 in colour),* **120s net**

CORRESPONDENCE

General Practice

SIR, I find the tenor of medical correspondence about General Practice extremely disturbing. Reactionary and highly emotive views are expressed with an intensity and in quantity disproportionate to the feeling that I sense among my colleagues, and based, it seems to me, on misdiagnoses. A contemporary of Dr. Tudgay, with a list too nearly full for comfort or satisfaction, I nevertheless find myself holding views in direct contrast to his.

In my opinion the National Health Service is the greatest social advance of this century, and the overall standard of general practice is now higher than it has ever been. This is not to say that I am unaware of the need for important changes. Serious dissatisfaction amongst G.Ps. is abundantly obvious, but that we are consciously aware of the real reasons is far from clear. Fashion dictates projecting it alternately on to the N.H.S. or on to the patients. Lack of time and a sense of pressure are widely agreed, but I am not convinced these are inherently due to the N.H.S. or more than marginally affected by unreasonable patients. That the population increased by half a million last year and the number of practitioners by less than 20 may be significant; perhaps the increasing complexities and intellectual demand of scientific medicine require more time; and what of the effect of increasing consumer awareness? The Fraser Committee lost no time in pointing out the lack of doctors and their unbalanced distribution as fundamental to the problem, but neither is this the fault of the N.H.S. per se, nor yet the method of payment or the absence of this magical direct payment element in the doctor-patient relationship. To speak as Dr. Tudgay does of the N.H.S. removing the freedom of choice from the patient, and of the bulk purchase of medical opinion, is either dishonest cant or hopeless confusion. The fact is that the N.H.S. has afforded freedom of access to medical care to millions for whom it was not so before; facilities are available in most areas to practise family medicine to a standard that was not generally possible in the pre-antibiotic and pre-Health Service era. In this district we are able to investigate our own patients comprehensively, in most cases up to the point where specialised in-patient procedures become necessary. I am particularly fortunate in having an excellent Health Visitor/Midwife attached to my practice which has enormously improved co-ordination with the Local Authority Services and the service we can give, especially in dealing with geriatric and child welfare problems.

You have said that removal of the direct fee for service has lowered the G.P.'s status and laid him open to abuse. I suggest there is no evidence to support this and that his status depends on his personality and integrity. Popular opinion polls, for what they are worth, still rate the doctor first. We all have a few memorable patients, like the Irishman who rang my partner at 4.30 a.m. for " my wife's prescription in the morning, doctor", but whatever would we dine out on without them? To offset these, I have found that since I introduced an appointments system a year ago in this predominantly skilled working class practice, 95% of patients made and kept appointments, less than one in 20 came without and less than two in every 100 failed to keep appointments.

Professor Titmuss in his " Essays on the Welfare State " has collected convincing factual evidence to show the overall economic lot of the general practitioner is incomparably better. Perhaps few of us realise that only the war preserved many G.Ps. from penury. Let me hasten to add that even so I do not believe general practice is yet receiving anything like economic justice.

At the end of his letter Dr. Tudgay says that if the N.H.S. is to continue, then the Government " must also impose a different type of medical training". Here I wholeheartedly agree. Hospital practice is becoming more and more narrowly specialised and less and less related to the everyday but important problems of general practice. Broadly speaking, hospitals must remain disease orientated, whilst general practice ought to become increasingly health orientated. Guy's clinical training in the one sphere is unsurpassed, in the other almost non-existent; and for the understandable reason that how can specialist clinical

teachers adequately relate their teaching to problems outside their experience? The result is the keenest would-be entrants to general practice emerge looking for cottage hospital attachments where they can utilise some of the painstakingly acquired skills which would otherwise lie fallow. This is all very well, but I believe closer examination of the nature and development of general practice shows the need for learning additional skills (but how or when?), particularly for example in the fields of sociology and psychology.

In terms of health, what we now too readily dismiss as trivial or minor symptomatology needs to be seen and understood afresh. A return to private practice will not facilitate this nor will it benefit those whose need is greatest, at least until there are far more doctors to go round.

Yours, etc.,

P. S. B. RUSSELL.

The Outspan,
5, Watford Road,
Croxley Green,
Rickmansworth,
Herts.

George Mitchell

SIR, Having a few moments to spare for the first time since leaving Guy's at the end of July, I must write to thank the friends, acquaintances, customers or otherwise for their good wishes for my future. At the same time I thank all Guy's people for making my eleven years at Guy's such an enjoyable time.

Particularly I must also thank the Rugger and Soccer Clubs for the very handsome tankard which they helped me to christen a few days before I left. They will no doubt be pleased to know that it is equally effective at helping me to dispose of beverages bought in Beverley.

The best of luck to all Guy's teams in the coming seasons, particularly the Rugger and Soccer. My first year as Rugby Fixture Secretary, Guy's won the Hospital Cup, so if you could do the same for George Preston, you would make quite a lot of people very happy.

The Soccer team should be able to retain their Hospital Cup, under " Willie's " able direction, for a few years.

My wife and I will be pleased to see any of our friends from Guy's if they are around this area, either at our home or at Brown's Bookshop in Hull.

Yours, etc.,

GEORGE E. MITCHELL.

28, Lowfield Road,
Model Farm Estate,
Beverley,
Yorkshire.

Australian Women

SIR, My husband and I were lucky enough to be both in Sydney and Adelaide for the Guy's Reunions. The medical men in Australia have kept in touch with one another, but this is not the case amongst the women.

I was asked by the organisers of the Sydney Reunion to contact any Australian Guy's nurses, Physiotherapists or Radiographers. After telephoning fifteen Hospitals and writing to Miss Perkins at Guy's, I did find five nurses and one Physiotherapist.

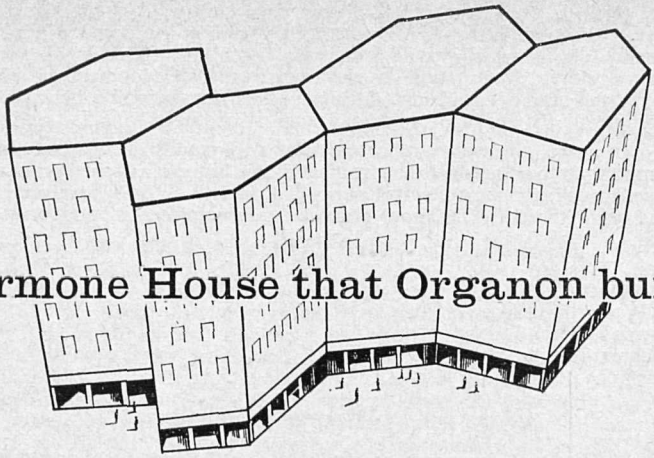
Altogether there were fourteen of us at the reunions and we decided to try and keep in contact and help any newcomers to Australia with information and hospitality.

If any reader knows of any Guy's nurses etc., in Australia, or who are intending to visit or settle here, would they get in touch with me.

Yours, etc.,

KAY GILL (née Robinson, M.C.S.P.).

Tea Tree Gully,
Nr. Adelaide
South Australia.

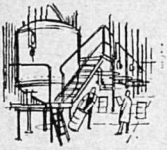


The Hormone House that Organon built

This is the idea that started the plan of the Hormone house that Organon built.

This is the researcher who had the ideas that started the plan of the house that Organon built.

This is the rat that was there at the start, as well as the cows, the sows and rabbits that enabled the researchers to probe the secrets of the hormones which built the house of Organon.



These are the workers who mixed the chemicals that joined up the molecules to make the bricks of the house that Organon built.

This is the doctor who found that the hormones helped his patients and prescribed the products of the house that Organon built.

Organon

THE HORMONE HOUSE

Organon Laboratories Ltd., Crown House, London Road, Morden, Surrey

SPORT

RUGBY FOOTBALL

One wonders whether it is a good idea to tamper with rules which have withstood the test of time and been adhered to for many years. It could hardly be said that the new cricket laws had proved a great success—however, the daily Press acclaimed the new Rugby laws with optimism. The changes were brought about with a view to producing more open Rugby, and in the opening encounters of the season this certainly seems to have been the trend.

After several weeks of hard training, Guy's opened their season with a convincing victory over Bromley (ex-Catford Wanderers) 21—5. Under the new laws there was some much improved three-quarter play, but Guy's have not yet mastered the rules in the tight scrums and lines-out, the ball going against the head several times in the scrums. The score was comprised of three goals and two tries, to a goal scored by Bromley.

Morris at full-back converted three tries with some accurate kicking. The opening encounters were somewhat scrappy and Guy's took time to settle down after making several mistakes and some bad positioning. Bromley took advantage of this and the score was soon 5—0 in their favour. This deficit seemed to spur the pack into action, and B. Rowlands making his debut for the senior side, scored two excellent tries after playing prominently. Morris then converted one to leave Guy's in front (8—5) at half-time.

The second half produced some better organised play and Guy's superior fitness helped to gain the ascendancy. The three-quarters had shown good speed throughout the game and soon Allan followed up a short kick by Edgar to score a try which Morris converted. The Guy's tally was closed when Sharpe scored in the corner after an elaborate passing movement.

R. Brown captaining the "A" XV, led his side to victory after the score had see-sawed in favour of both sides throughout the game. J. Goven played well in the second row and Guy's finally won 23—17.

Reports and Results

RUGBY FOOTBALL

GUY'S v. BROMLEY

At H.O.P. 12th September, 1964.

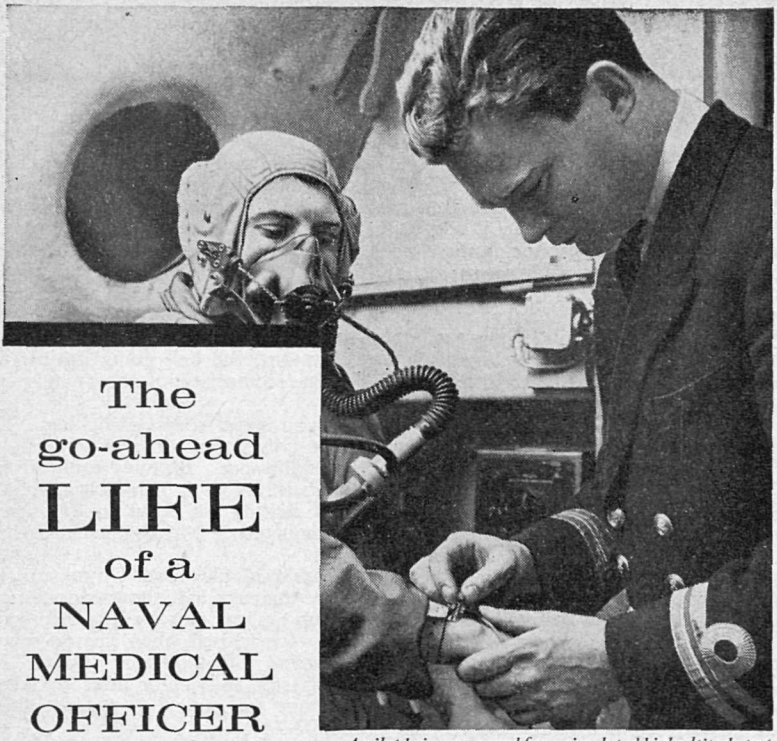
Result: won 21—5

In its opening game, the Hospital beat Bromley by three goals and two tries to a goal. The day was sunny and the pitch hard, but Guy's superior fitness carried them through. D. Fleming-Jones, on the wing, and C. Lewis, hooking, filled the places vacated by D. Biggs and E. Price. B. Rowlands, making his first appearance for the fifteen at outside-half, made several promising moves and capped his debut by scoring two tries.

The first half was rather scrappy and disorganized. The pack obtained the ball with difficulty in the tight scrums and in the lines-out the jumpers met effective spoiling. The threequarters received rather a poor supply of the ball. Neither side appeared to be gaining the ascendancy until Bromley worked the blindside near the Hospitals' line and went over to score; the try was converted. This set-back put greater effort into the Guy's play. A mistake in the Bromley threequarter line was tapped through at their feet and Rowlands was up to get the touch-down. Morris converted to put the scores equal. Shortly after, a similar move finishing with a cross-kick from Kerner, gave Rowlands the opportunity to score. Morris was just wide with the kick. In the period just before half-time greater co-ordination appeared to help Guy's and obtaining the loose ball on a few occasions, the threequarters got into their stride. One glorious dummy and break by Rowlands put Edgar away. Edgar passed out to Kerner on the wing, who was only just bundled into the corner flag by three desperate defenders.

In the second half, Guy's fitness began to tell. After some indifferent play on the Guy's 25, the home threequarters eventually broke through with a short grub kick by Edgar. Allan followed up at speed and gained the touch-down. Morris converted. The loose ball was gained more frequently and a good bout of interpassing by the forwards gave Sharp a try wide out. The try was converted with a fine kick by Morris. Guy's kept the pressure on and Crawley whipped out a loose ball on the blindside. Rowlands and Sharp took play on, and a cross-kick by the latter was fielded in front of the posts. With the Bromley defence streaming across, the ball was switched back the way it had come and Sharp, waiting at the corner flag, scored with ease. The kick failed, but the final whistle gave Guy's a comfortable victory.

Team: A. M. Morris; R. Kerner, A. J. Allan, J. A. Edgar, D. Fleming-Jones; B. Rowlands, H. W. MacGregor; J. E. Davies, C. Lewis, R. Stansfield; D. G. Gourley, A. J. Kingdon; H. Sharp, D. Hartley, I. A. Baker (Capt.).



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HOSPITAL INFORMATION

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Applications are invited for a post in the **Cerebral Palsy Assessment Centre of the Paediatric Research Unit,** which is designed to allow the holder to conduct research into the assessment of the physical disabilities of cerebral palsy; there is close liaison with the Paediatric Department of the Hospital. The appointment is of middle-grade Registrar status and the salary will be £1,425 or £1,595 per annum according to qualifications and experience, with superannuation; duties to commence as soon as possible after **1st October, 1964.** Application should be made as soon as possible on a form obtainable from the Dean.

GUY'S HOSPITAL

Applications are invited from medical graduates for a post of **Junior Lecturer or Lecturer in the Bacteriology Department,** with duties commencing on or before 1st December, 1964. Salary in the range £1,400 to £2,535 per annum according to qualifications and experience, with superannuation, and family allowance, if applicable. Application should be made on a form obtainable from the Dean, not later than **17th October, 1964.**

GUY'S HOSPITAL MEDICAL SCHOOL

Applications are invited from medical or science graduates for the post of **Lecturer in the Department of Anatomy** with duties commencing as soon as possible. Salary in the range £1,805 to £2,505, according to qualifications and experiences, plus £60 London Allowance, with superannuation and family allowance if applicable. Experience in histology desirable. Applications should be sent to the Dean, Guy's Hospital Medical School, London Bridge, S.E.1, not later than **30th September, 1964.**

HOSPITAL INFORMATION

ALLOCATION OF MEDICAL AND SURGICAL REGISTRARS

1964/65

To take effect from October 1st, 1964

Medical Registrars

Dr. Mann and Dr. Scott	Dr. I. D. B. Rennie
Dr. Hardwick and Dr. Trounce	Dr. G M. Davies
Dr. Baker and Dr. Houston	Dr. J. R. R. Spurrell
Dr. Kauntze and Dr. Joiner	Dr. C. N. Mallinson
Professor Butterfield and Dr. MacLean	Dr. J. A. P. Trafford

Junior Medical Registrars

Dr. Mann and Dr. Scott	Dr. S. R. Meadow
Dr. Hardwick and Dr. Trounce	Dr. R. N. Maini
Dr. Baker and Dr. Houston	Dr. J. E. Hern
Dr. Kauntze and Dr. Joiner	Dr. A. S. Russell
Professor Butterfield and Dr. MacLean	Dr. M. D. O'Brien

Surgical Registrars

Mr. Eckhoff and Mr. Glover	Mr. B. A. Ross
Professor Atkins and Mr. Lawrie	Mr. J. C. Gazet
Mr. Wass and Mr. Brain	Mr. S. A. R. Cooke
Mr. Blackburn and Mr. Beard	Mr. R. C. Feneley

Medical Registrars and Junior Registrars with duties in special departments

Cardiac Clinics	
Dr. Baker	Dr. J. R. R. Spurrell
	Dr. J E. Hern
Dr. Kauntze	Dr. C. N. Mallinson
Endocrine Clinic	
	Tues., Dr. J. A. P. Trafford
	Thurs., Dr. M. H. Lessof
Chest Clinic	
	Dr. I. D. B. Rennie
	Dr. S. R. Meadow
Asthma Clinic	
	Dr. S. R. Meadow
Diabetic Clinic	
	Dr. G. M. Davies and Dr. M. D. O'Brien
V.D. Clinic	
	Dr. A. S. Russell
Staff Clinic	
	Dr. J. E. Hern

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Surgery

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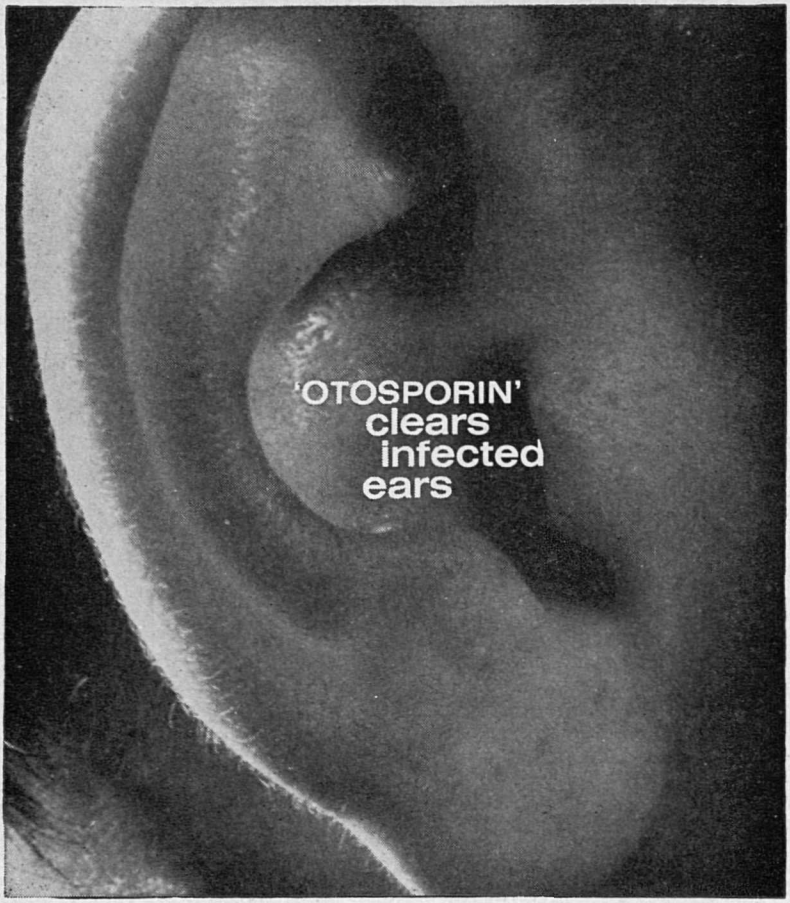
UNIVERSITY OF LONDON

Recognition of teachers

J. J. Fleminger as Teacher of Psychological Medicine at Guy's Hospital Medical School.
A. H. R. Rowe as Teacher of Dental Surgery in Guy's Hospital Dental School.
I. G. Anderson as Teacher of Chemistry at Guy's Hospital Medical School.

Appointment of Examiners

Anatomy (B.Sc. Special) J. Joseph; R. Warwick.
Physiology (B.Sc. Special) R. V. Coxon; J. N. Hunt.
M.D.S. Part 1. M. A. Rushton.



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NURSING NEWS

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Staff Midwife A. Carvell to Victoria.

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Sister R. Knights from Evelina Hospital.
Charge Nurse A. Price from Sarah.

PAPERS BY GUY'S MEN

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GUY'S HOSPITAL GAZETTE

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3rd October, 1964

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Editors *T. C. Davis*
B. H. Hicks

Sports Correspondent *N. J. Knott*

Guy's Hospital, London

PASSIM

The Combined Round

With the new term imminent, the Combined Round will soon reappear in *Guy's Diary* as a regular entry. We know that behind the scenes there is going on a "rethink" on the structure of this type of round, and we think it timely. In recent years the Friday afternoon session has often lapsed into a rather pale, sleepy reflection of standard teaching rounds, occasionally enlivened by a measure of bickering, rarely by good discussion, and occasionally by excellent demonstrations of cases. This is all reflected in the declining attendance of students at these properly voluntary functions.

The problems of giving these rounds their deserved value and interest cannot be approached without a clear idea of the purpose of the Combined Round in a teaching hospital. We believe it should be more than a *demonstration* of a rare condition or of the presentation of a common one, though it will always include that. Medicine contains few cut-and-dried answers, but in clinical teaching it is all too often necessary to revert to a dogmatic approach if the course is to be covered. But must the matter rest there? The Combined Round offers the ideal opportunity of a free forum, where diagnosis and management can be dissected and criticised without rancour. It offers a home to the science of medicine, where fact and opinion show in their true colours. But it is rarely used to full effect.

The essence of the past Rounds has been not scepticism but tact, not criticism but respect, a very healthy attitude for a fifth-form debate, perhaps, but not for an adult discussion of important issues. American colleagues can teach us much in this respect, and the democracy of opinion in their "grand rounds" is an edifying experience. Both students and their seniors find it a stimulating process. They can also teach us something else, in the high proportion of housemen, registrars, and consultants attending these rounds, resulting in a high standard of qualified (and differing) opinion. The Combined Round has never suffered from the "summit conference" atmosphere, but it has all too frequently from neglect.

The emphasis has been laid here on the standard and total freedom of discussion, for we believe this deserves priority. The problem of making the discussion comprehensible to the student is usually over-stressed. The student learns a great deal of and about medicine even when he is only a spectator to a high-level discussion of a problem, and he may well learn less if the level is lowered for his sake. He will learn even more if he participates, and he is more likely to do this if stimulated by first-rate discussion as opposed to some form of spoon-fed medicine. The short talk on points of interest or difficulty is excellent at the proper moment, but the round must not become a lecture demonstration. The student is talked *at* enough already.

The Department of Medicine does not have an easy task in this reformation, and we hope for the betterment of Guy's that they succeed. Our opinion is but one, and we trust that many other views will be obtained before the pattern is set. Other departments at Guy's still show a marked reluctance to consult the student body on anything, even when a change in their curriculum is involved.

Autumn Leaves, Dances, etc.

As the park bears its first delicate carpet of leaves, as the pale strained faces of candidates wend their way to Queen's and Gordon Squares, and the annual shift to the left of registrars takes place, we know again that Autumn is with us. London's sooted beauty takes on that slightly yellow, misty tone that our bronchi know so well, and the fresh new bricks of Guy's House soften with the gentle dirt of Thomas' Street. To round off this "season of mists and mellow fruitfulness" comes the first social function of the Students' Club in the new premises, on Friday, 6th November. The price has been reduced (on protest) to a bargain level, and the evening promises to be a first-class affair. (It's the season for even fig-leaves to fall). We wish it all success.

James Marsh, of King's Head fame, has been given several two-hundred-year-old chimney pots! The pub is not for burning and we are told that "there are many more where those came from". They are tall, slender and finely worked and are rather suitable for cumbersome cacti or umbrellas. The local archaeologists have more of them, and better to raise in them than to raze them. Offers, please.

GUY'S DIARY

OCTOBER

EXHIBITION.			*Fractures.*
6th	T.	1.00	Dr. MANN. Clinical Lecture. *Gall Stones.*
8th	Th.	5.00	Neurosurgical Round: Clinical Theatre. Conducted by Mr. P. SCHURR.
12th	M.	1.00	Professor BUTTERFIELD. Clinical Lecture. *The Examination of Diabetic Patients.*
13th	T.	1.00	Mr. ELKHOFF. Clinical Lecture. *Burns.*
15th	Th.	1.00	Dr. HARDWICK. Clinical Lecture. *Intestinal Malabsorption.*
19th	M.	1.00	Mr. GIBBERD. Clinical Lecture.
20th	T.	1.00	Professor ATKINS. Clinical Lecture.

OBITER DICTA EVELINAE

Porter: "*Morning, Sir.*"
Dr. Evans: "*Good Morning.*"
Porter: "*Who are you, sir?*"
Dr. Evans: "*I'm Dr. Evans.*"
Porter: "*Oh, I thought you were Dr. Vaughan, sir. You look like him.*"
Dr. Evans: "*Oh no, Dr. Vaughan is much more handsome than I am.*"
Porter: "*Yes, sir.*"

The Development of Radiology

C. B. ALLSOPP

History was made rapidly in the early days of radiology. Röntgen discovered X-Rays in November, 1895, and published an account of them on December 28th at Würzburg. This was reported in the London press on January 7th, 1896. Before the end of that month, X-Rays were being used in several centres in England and Scotland for the purposes of medical diagnosis.

Within four months (the Preface is dated April 2nd) the world's first Radiological Journal, *Archives of Skiagraphy* (it is now *The British Journal of Radiology*), made its appearance. It consisted almost entirely of radiographs ("skiagrams") and it was edited by Sidney Rowlands, a student who had recently gone to Bart's as Shuter Scholar after graduating at Cambridge. He was, of course, not yet qualified.

At about the same time, Professor Sylvanus Thompson lectured on X-Rays to the Clinical Society, and this was reported in *Guy's Hospital Gazette* for April 11th, 1896, under the heading THE ROENTGEN RAYS. The *Gazette* also quoted an article from a New York paper: —

X-RAY SPECTACLES NOW

Edison invents a Portable Machine for Surgeons

" With his Fluoroscope over his eyes, the Doctor will be able to see the fracture or bullet which he may wish to reach and thus avoid unnecessary cutting."

The " fluoroscope " was a screen coated with calcium tungstate crystals.

One year later, Guy's had its own X-Ray equipment. The following announcement appeared in the *Gazette* for April 24th, 1897:

SKIAGRAPHY IN THE HOSPITAL

" Preparations for installing the new skiagraphic apparatus go on apace, and at present comprise a 10-inch spark coil of English make, by Messrs. Millar and Woods of Gray's Inn Road; and two special double pole vacuum tubes, one of high resistance for skiagraphing the thicker portions of the body, and the other of low resistance for obtaining clear and rapid impressions of the hand and foot.

There are also 50 ampere-hour accumulators by Messrs. Watson Bros. of Cockspur Street, Charing Cross, and a 12-in. by 9-in. double coated platinum platino-cyanide screen from Berlin for instantaneous work.

The bedroom belonging to the Sister in Accident ward has been given up for the purpose, and when completed will contain the apparatus, which is at present in the electric department, and a special universal jointed bar bracket for placing the tubes in position to take any portion of the body. The place itself will be lighted by electricity.

It is intended that the room, when ready, shall for the present be available for skiagraphy, and the electrician be in attendance from 12 till 12.30, and 2.30 till 3 o'clock every week-day except Saturday, when the time will be from 12 till 1 p.m.; rules no doubt being issued to this effect."

We do not know who was the displaced Sister, and " Electrician " may have been a generic name for various people (*vide infra*); but two more clinical students, E. W. H. Shenton and A. H. B. Kirkman, must have had part in this since in 1899 they were appointed " radiographers " to the Hospital. Kirkman qualified in that year, but left Guy's in 1900 to become an " X-Ray expert " in the South African War. Shenton, who had come to Guy's in 1893, but who did not qualify until 1901, stayed on until 1919, when he resigned from the post of " senior surgical radiographer " in order to take up consultant practice in Harley Street.

In the autumn of 1899, these two pioneers read a paper on "The Roentgen Rays as a Means of Diagnosis " to the Pupils' Physical Society. It is reproduced in full in the *Gazette* for November 4th. The radiographs which they exhibited were not very good, but the notes on them throw light on the conditions under which they were taken. The exposure for a radiograph of the thorax, for instance, was 1 minute:

" it was taken while the patient held her breath".

The use of a method devised by Shenton for the localisation of foreign bodies in three dimensions, employing a fluorescent screen, was mentioned. The authors were at great pains to stress that X-Rays were to be considered only as a means for diagnosis and not as a special brand of medicine.

"As the stethoscope is to medicine so is the X-Ray apparatus . . . Radiography is supposed by some to be a special branch of photography; this cannot be allowed unless it is also admitted that auscultation is merely a branch of acoustics or bacteriology a branch of cooking."

It is perhaps surprising that, at a time when X-Ray apparatus was being improved almost daily and, being inexpensive (X-Ray tubes could be obtained for 17s. 6d.), was likely to be continually changing, no account was given of the Guy's equipment. This may have been because the audience was already familiar with it. An article by " J.T.D." in the *Gazette* for October 23rd, 1897, had commenced:

HOW TO TAKE A SKIAGRAPH

"It has been suggested that a short account of how to take a skiagraph would be useful, especially for electrical clerks coming on duty . . .

The first thing is to put up the apparatus. This is exceedingly simple, and a reference to Diagram I will make it clear."

By courtesy of the present Editors, this diagram is reproduced here so that readers can judge for themselves. (*Figure* 1).

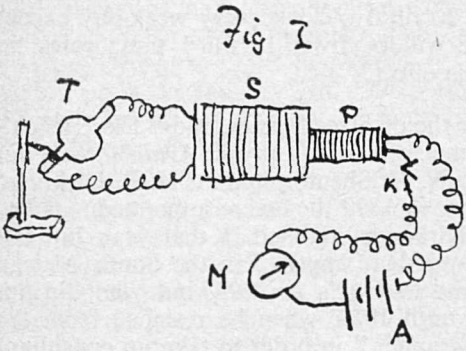

Figure 1 The X-ray apparatus, 1897
(*Guy's Hospital Gazette, 23rd October, 1897*)

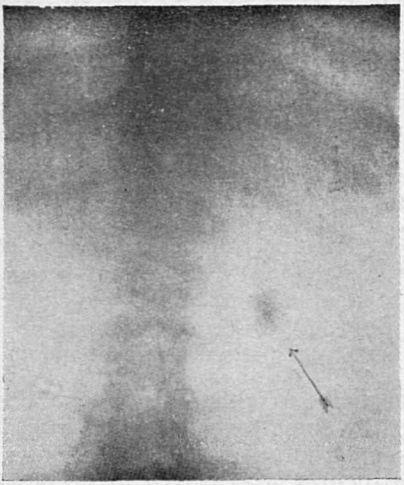

Figure 2 "Oxalate of calcium calculus in the right kidney. Exposure, 20 seconds"
(*Guy's Hospital Reports, Vol. LVI, 1901*)

Apart from a description of a new contact breaker on the induction coil, however, J.T.D. did not say much about the X-ray set itself, but he gave the impression that any photographic plates and developer which came to hand were used for radiography, that the setting up of the patient was rather rough and ready, and that exposure times were very long by our standards:

> "A hand generally takes from eight to ten minutes, and other thicker parts proportionately more time. This is a pity, for it wastes not only time but electricity."

A comparison of these times with those specified to the Pupils' Physical Society shows that Shenton was effectively reducing them. This is confirmed in Shenton's later papers. In 1901, he wrote "Notes on the setting up and working of an X-ray installation" in *Guy's Hospital Reports,* Volume LV. In this article he describes a new couch with an under-couch tube for screening and a new 2-electrode tube to go with it, both designed by himself.

> "With this tube it is possible, under favourable conditions, to get skiagrams of the stoutest individual in any region in a space of time that need not exceed half a minute. Its screening capacity is great and upon many occasions I have been able to see renal calculi in situ." (*Figure* 2).

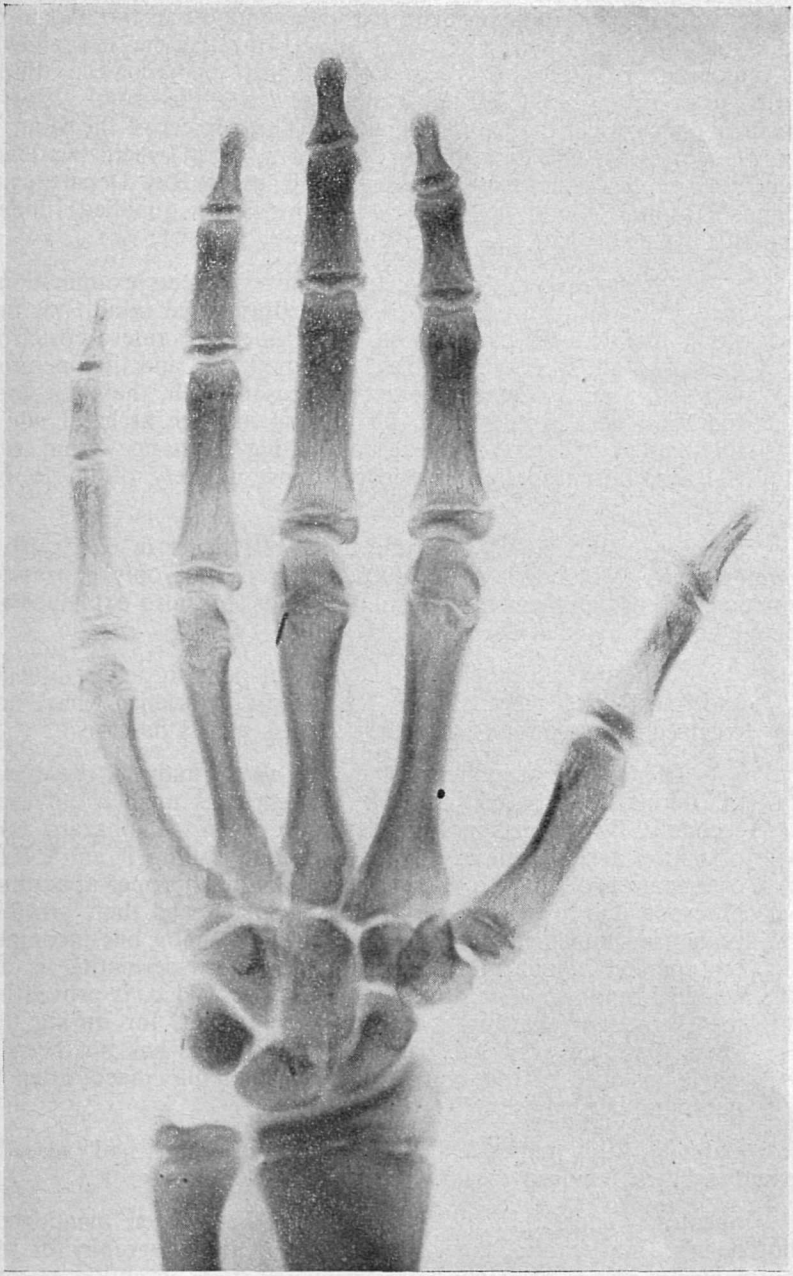

Figure 3. Plate No. 120, dated 15th May, 1900. Diagnosis, "Needle in hand." This plate typifies the better radiographs done at this time, although the average standard was nearer that of Figure 4.
(*From the original*)

Shenton seems to have taken particular interest in the diagnosis of renal calculus. At the Physical Society meeting he had shown a radiograph of one which was perhaps only the second or third to be recorded in the literature. He had reviewed the use of X-Rays in their diagnosis in the column headed " The Subject of the Hour " in *The Physician and Surgeon* for April 5th, 1900 (when, incidentally, he was described as " In Charge of Röntgen Ray Department, Guy's Hospital "—and he was still not medically qualified) under the title " Calculi and the Roentgen Rays."

> " Skiagrams may be taken, and even screen examinations made, of the kidney region of the medium-sized adult, but the stout, middle-aged patient, with a considerable antero-posterior measurement, is a trying subject to radiograph, and the operator will say, with a degree of practical reason, ' Oh, that this, too, too solid flesh would melt.' The time may be at hand when this patient will receive great and lasting assistance from the X-Rays, but at present he is the most unlikely of all to be benefited."

Shenton continued on the same topic in a paper in *Guy's Hospital Reports,* Volume LVI, in 1902, when he not only expressed some very sensible views on radiation hazards, but also explained in detail how he avoided them:

> " The detection of renal calculus, at once the most difficult and most useful branch of Roentgen-ray science, has not received the amount of attention that its merits deserve.
>
> This can be accounted for in two ways, firstly by the dread of dermatitis, shared alike by patient and medical adviser; secondly, by the disappointment arising from a haphazard way of taking a skiagram of an abdomen and calling it an X-Ray examination of that part. The novice with improper apparatus is responsible for the dermatitis in these days, and there are few branches of medicine in which this well-meaning but incompetent person would not be dangerous. That dermatitis is an accident, and one that can and should be avoided, is proved by the records of the Guy's Hospital department, for during the years that this work has been carried on there has not been a single instance of inflammatory reaction taking place after a photographic exposure."

Later in this paper, Shenton stated that he had already examined two hundred cases of suspected calculi.

Shenton's interest in localization has already been mentioned; but he also had a third, very sensible one, the radiography of the normal. In his early papers he frequently drew attention to the ease with which false deductions could be made from a radiograph unless the exact orientation of patient and tube was properly known; and in a paper in *The Physician and Surgeon* on February 22nd, 1900, he discussed this with some interesting examples:

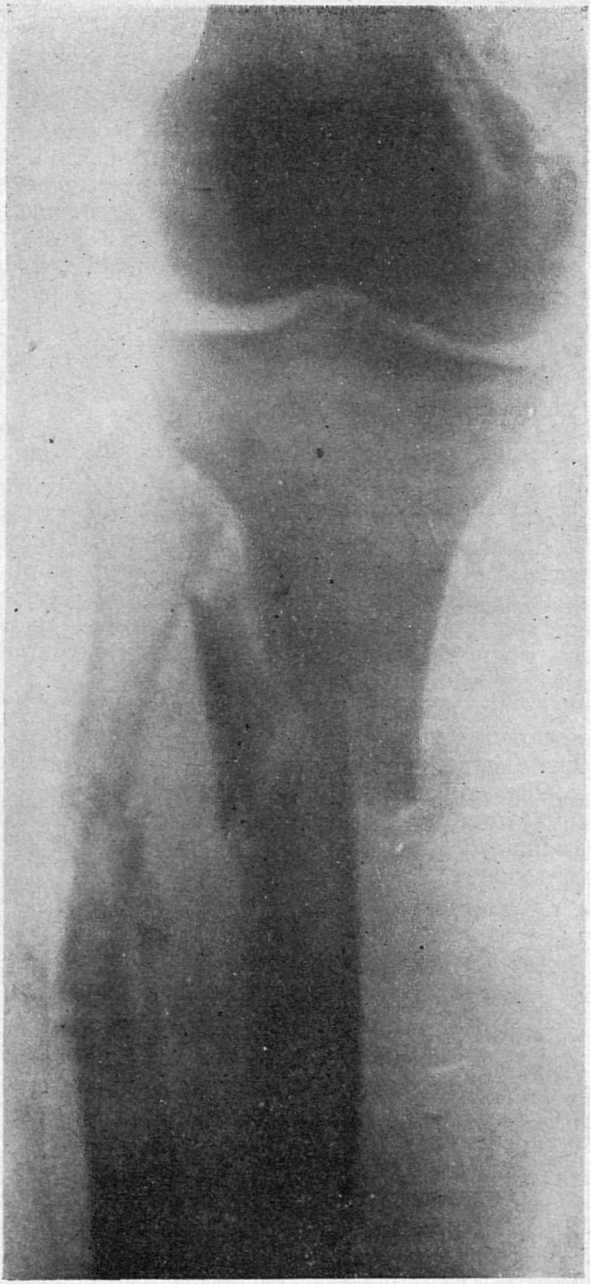

Figure 4. Plate No. 29 dated 1st January, 1900. Surgeon, Mr. Golding-Bird. Diagnosis: "fractured tibia and fibula." Remarks, "Excellent negative, comminuted"
(From the original)

"There is an anatomy for surgery, an anatomy for medicine, and there is a special anatomy for radiography, as yet unwritten and unstudied.

The surgeon who relies upon his anatomical knowledge to translate a skiagraphic appearance will find he depends on a broken reed. The physician who expects his surface anatomy to serve him when examining a chest upon the fluorescent screen will be disappointed and perplexed . . . . one of the chief difficulties is caused by the manifold appearances produced by changes in position of the Crookes tube.

A striking example of this difficulty is seen while a thorax is being examined upon the screen; it is then possible, by moving the tube up and down and from side to side, to place the heart successively in the abdomen, neck or either axilla."

On June 3rd, 1897, there had been founded in London the oldest Radiological Society in the world, the Röntgen Society, now the British Institute of Radiology. It was described as a group of "leading men interested in the study of X-Rays, both in their medical and general scientific application". To this body, Shenton belonged. In July, 1901, he became a member of its Council, and then its Librarian. He presented to the Society a set of "normal radiographs". These must have been taken at Guy's; if anyone knows where they now are, the present writer would be grateful to receive the information.

The beginnings of radiology took place in an atmosphere of intense activity. It was an age for young men, and Guy's was fortunate in its young man—"this truly inventive genius whose originality was so outstanding" as Kirkman wrote in an Obituary when Shenton died in 1953. Physicists are still throwing up new ideas for radiology, and Guy's is still in the forefront in applying them. Young men, please note.

Figures 3 *and* 4 *are reproduced from the original records of the Roentgen Ray Department, Guy's Hospital, for the year* 1900, *by courtesy of Dr. T. H. Hills.*

NOTICE

The Guy's Hospital Science Club

The first meeting of the 1964-65 session will be held in the Committee room in the Medical School on Wednesday, 14th October, 1964, at 4.45 p.m.

Dr. R. T. Grant of the Department of Experimental Medicine, will speak on:—

"Blood vessels of skeletal muscle."

The chair will be taken by Professor R. H. S Thompson.

The Science Club, which meets six times a year, was founded in 1944 with the primary object of the presentation and discussion of research in progress or completed in the Medical School or Hospital. A cordial welcome is extended to all members of the teaching and research staffs of the Hospital and Medical and Dental Schools.

Tea will be served at 4.30 p.m. in the Staff Common Room.

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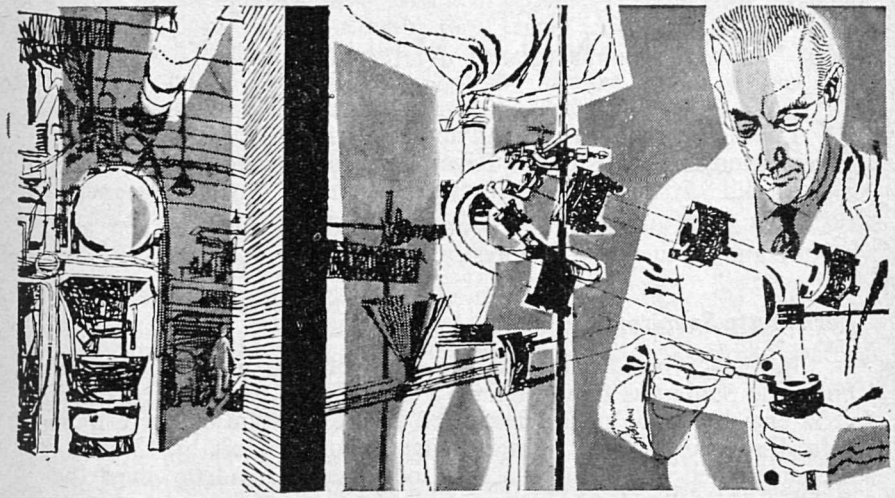

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Lourdes

An Assessment

Michael Mitchiner

Lourdes in 1858 was a small and rather insignificant village in the Pyrenees on the banks of the River Gave, dominated by a castle on a small hill. It was built shortly before the time of Charlemagne.

The chief means of the people's livelihood depended on agriculture and pasturage, with forestry on the hills.

Bernadette Soubirous

In 1844, when Bernadette, the eldest of their nine children was born, the Soubirous family rented a mill. They were moved out in 1854 and, by 1856, having descended to near destitution, were living in a disused cell in the former village prison, 16 feet by 13 feet, it accommodated the family of six persons. Bernadette lived her childhood in the declining social circumstances of a poor family. For a year in infancy and for holidays thereafter she stayed with more prosperous relatives at their farm in the neighbouring village of Bartrès. From the age of six, Bernadette suffered from asthma, at times severely. She had an attack of cholera in the epidemic of 1854-55, and in later years suffered from tuberculosis. As a result of her asthma, and from the need for her to look after the younger children, she was a poor school attender and was backward. At the age of 14 she was nearly illiterate.

What happened in 1858

Between February 11th and July 16th, 1858, Bernadette claimed to have had 18 visions.

On February 11th, 1858, she, her sister, and a class-mate were collecting firewood near the river Gave. Bernadette did not cross the river with the others. By a cave in the hillside she saw a "beautiful girl of about her own age". Both she and "the Lady" prayed, saying the rosary in the local dialect. Naturally the story spread.

On future occasions, Bernadette returned, accompanied by an increasing number of people. These were acquaintances, later other villagers and finally people from the surrounding countryside came as well as the local police. During the appearance of the "Lady", Bernadette became pale and was unresponsive to either calling or being shaken.

No one else saw or heard the "Lady". Bernadette described her in detail and recounted certain words the "Lady" said to her. —Pray to God for sinners; kiss the ground in penance for sinners;

tell the priests to have a chapel built here. She also said she wished people to come there in procession and showed Bernadette to scratch the ground, telling her to wash in the water and drink it. Before a large crowd, Bernadette scratched in the ground and washed and drank in the muddy water which appeared. The spring grew in volume and still flows. Finally, the "Lady" identified herself, saying in the local dialect, "Que soy era l'Immaculada Concepciou" (I am the Immaculate Conception)—That the Mother of Christ was conceived sinless, was officially declared in 1854 by Pope Pius IX.

These sayings were the message of the "Lady" which Bernadette recounted to her questioners. These happenings were met with credulity by some and incredulity by others, but most were just curious.

The civil authorities, notably the chief of police M. Jacomet, and the district attorney M. Dutour, saw her as a menace to civil peace and interrogated her. They were unable to bring her to contradict herself and found her simple and honest. They concluded that she believed what she was saying.

The priests of Lourdes also held aloof, neither visiting the cave, nor countenancing or condemning what happened there. Bernadette refused all presents, either for herself or her family. The family continued to live in the ex-prison cell and later rented cheap lodgings; Bernadette continued to attend school. The cave became a place of religious worship by the local people from which they also took specimens of spring water. Barricades around the place, put up by the civil authorities, were broken down on a number of occasions and in July 1858, their removal was ordered by the Minister of Religion in Paris.

In order to sort the matter out a Canonical Commission of Investigation was set up by the Bishop of Tarbes in July, 1858; which sat until 1862. One of its medical members was Professor Vergès, of the faculty of medicine of Montpellier. Its terms of reference were to decide whether Bernadette Soubirous really saw something or was a fraud; and if she saw something, whether it had a natural explanation or not. From questioning many witnesses, including family acquaintances and the civil authorities, they concluded that Bernadette really believed she had seen what she described. Additional evidence, including that of various medical witnesses (they found no evidence of any mental abnormality), of a local doctor who examined Bernadette during a "vision", of the nature and circumstances of the visions, produced the final conclusion that the things Bernadette had seen were not the result of tricks of vision, of hallucinations, or of any mental disturbance, and that they could not be explained on any natural basis.

The conclusion reached by the commission on January 18th, 1862, was that "The Mother of God really appeared to Bernadette Soubirous".

Growth of the Shrine

Many of the local people of Lourdes and nearby believed in the truth of Bernadette's "Lady" and of her message from the beginning. This belief was stimulated by the earliest cures.

On 27th February, 1858, Louise Bourriette, a 53-year-old lady, blind in one eye for 19 years, washed her face in water from the spring and immediately regained her sight. On 28th February, 1858, Mme. Bouhohorts immersed her two-year-old son Justin, moribund with tuberculosis, in the water of the spring for a quarter of an hour. Taken home, he slept well and the next day walked for the first time; and remained well. He died in 1935. Certificates of the two doctors in Lourdes are extant. Both persons were residents of Lourdes. Since that time the shrine has grown in importance.

The fundamental events which occur in the shrine of Lourdes and in which pilgrims take part gradually took form, based on the messages of the "Lady" as related by Bernadette:—

(a) " I wish people to come here in procession." There are two processions each day—afternoon and evening.

(b) ". . . have a chapel built here." The first church was completed in 1876. Now there are four, where a number of Masses are celebrated daily.

(c) "Do penance." The "Way of the Cross" with scenes commemorating the death of Christ are visited by many people, some bare-foot.

(d) "wash and drink the water." There are facilities for bathing in the water, and taps for collecting it.

(e) "Pray for sinners." Many people pray in front of the Grotto (cave) and in the churches.

Apart from a short ceremony when a pilgrimage arrives in and leaves Lourdes, these are the only ceremonies which take place in the area of the shrine.

The first French National Pilgrimage came in 1872. Since then the influx of pilgrimages has steadily increased.

This advent of large numbers of people visiting Lourdes has brought with it, for better or for worse, the building of many hotels and shops.

Medical aspects

Attention has been focused on Lourdes because a number of people have been cured of organic diseases in a scientifically inexplicable manner. To study alleged cures, a medical bureau was established in Lourdes in 1885. Examinations of patients and their records are arranged by a resident director. The examining doctors include any doctor who is in Lourdes and wishes to assist.

In assessing alleged cures cognisance is taken only of patients proven to be suffering from organic diseases, who are not responding

to treatment, who are cured in an instantaneous manner, in the absence of any additional treatment, and who do not relapse.

To be considered—

(1) Patients are required to bring a medical certificate bearing details of their illness, and to submit to questioning and medical examination shortly after the alleged cure has occurred.

(2) Patients are required to return for medical examination, usually on two occasions at least, two years after the alleged cure, bringing current medical certificates.

(3) Doctors require detailed information from hospitals and doctors treating the patient prior to, and after the alleged cure in order to assess his previous condition and the absence of relapse.

The aim of the doctors is to decide (a) whether the illness really existed; (b) whether it was cured (according to the above conditions); (c) whether the cure can be explained naturally.

Inadequate medical evidence often precludes a decision, which must be unanimous. However, in about 400 cases the signed decision of the doctors of the medical bureau has been that a cure has occurred which cannot be explained on natural or scientific grounds.

Charles Macdonald was born in Dublin in 1905. In 1924 he was diagnosed as suffering from pulmonary tuberculosis—sputum positive. In 1931 he was shown to have Pott's disease with collapse of T12, and the next year developed a lumbar sinus. This was followed by the development of tuberculous arthritis of his left shoulder, which formed a sinus below the lateral end of the clavicle. In 1935 he developed nephritis.

In September 1936, bed-bound for 15 months, he went to Lourdes with a medical certificate stating him to be suffering from "Pott's disease of T12, nephritis and tuberculous arthritis of his left shoulder". Dr. Hanningan, who dressed his lesions on the train and in Lourdes, stated that he had two lumbar sinuses and three around his left shoulder.

On September 7th he felt well, had no pain, and the next day he walked and continued a normal ambulant life. The sinuses closed in a few days. Within three weeks of his return he was at work and riding a bicycle. In September 1937, he and his medical documents from the Heath Hospital, Dublin (before and after his visit to Lourdes), and documents from other doctors treating him were examined in Lourdes by the medical bureau. The president of this examination was Dr. Smiley Blanton (Presbyterian), a psychiatrist of the Rockefeller Institute, New York. He and the 32 doctors assisting signed that:—

"This patient was most certainly suffering from (1) tuberculosis of the left shoulder with 3 fistulae; (2) Pott's disease of the dorsal spine with two fistulae; and (3) chronic nephritis shown by the presence of pus, blood and albumin in the urine.

—These three affections were in full evolution when he went to Lourdes; their activity apparently ceased on September 7th. That day the cure was a functional one following immediately the second bath in the piscines; four days after, the five fistulae, which had all been discharging pus, were definitely cicatrised, and the urinary trouble had also ceased. At the same time all pain vanished and partial movements were possible in the left shoulder and lumbar region.

—This cure, obtained without the use of any medicaments or other therapeutic means, was followed by a year of excellent health and of as much work as the resulting deformities permitted.

—No medical explanation in the actual state of existing science can explain the extraordinary rapidity of this cure, in an affection incurable by the various medical men who had been called in. The general infection dated back to 1924, and to 1931 for the osseous involvement. This cure is clearly outside ordinary biological law."

He has since had no recurrence of tuberculosis.

X-rays in 1954 by Dr. Reynolds, of Dublin, showed him to have a bony ankylosis of his left shoulder, fusion of the bodies of T.8.9.10.11.12, calcification in both lungs with fibrosis at the left apex and upper mediastinal displacement to that side. IVP. showed free and equal excretion by both kidneys with bilateral enlargement of the renal pelves, but no deformity of the calyces.

When I met Charles Macdonald in 1959, he was a normal thick-set middle-aged man with a wasted left shoulder, which he had some difficulty in using.

Lourdes is associated with the cure of some people in a medically inexplicable manner, but it must be noted that many more than the 400 or so passed by the medical bureau put forward claims of cure or alleviation of their illnesses. Some of these claimants may have undergone an alleviation of their illness, many more may have altered their psychological outlook on their disease and thereby be better able to cope with their environment; and a few are frauds.

People who go to Lourdes

Lourdes has been described in various terms from a refuge of cranks and over-pious hysterics to a shrine of deep spirituality. The truth seems intermediate. Undoubtedly, there is a great deal of prejudice associated with the name of Lourdes, which results in over-enthusiasm to discredit it or to exalt it; and consequent generalisation without adequate evidence.

A large number of people visit Lourdes who form a reasonably representative economic, social and intellectual cross-section of their places of origin. With a mean intelligence, around I.Q. 100, appreciably lower than that of university members, such a group of people may be expected to base more of their beliefs on the statements and conclusions of their intellectual betters, and fewer on the conclusions of their own evidence and experience than is the case with members of a university. Without taking this into account the mass of people

visiting Lourdes have frequently been criticised as overcredulous and gullible, and their beliefs dismissed as pious fables. These conclusions, popular among intellectual members of society, neglect the fact that some of their ranks have looked for evidence on which to support or refute the factual basis of Lourdes. Interesting evidence is available which deserves consideration.

Where a large number of people gather, it is natural that some should be more credulous and gullible, and others less mentally stable than is the norm for their population of origin. Likewise one finds some persons inclined to attribute divine intervention to rather natural occurrences. Whatever may be the impression produced by such persons, they and their beliefs are really no evidence for, or against, the claims of Lourdes.

While it is difficult to analyse the motives inducing persons to visit Lourdes; these points present some of them:—

(1) The ceremonies of the shrine at Lourdes are not *per se* sentimental or emotional, but some people make their visit a sentimental and emotionally satisfying experience.

(2) Of the few million sick people who have visited Lourdes, a few have become cured of organic disease in a medically inexplicable manner. Sick people may hope for alleviation of their disease. Many of those medically unchanged, seem to gain an increased degree of lasting acceptance of their disabilities and contentment with life.

(3) Others may welcome an opportunity for putting aside the trivialities of life and considering some of its deeper aspects with a view of life on a more spiritual plane.

(4) This is an attempt at a brief, unbiased, and objective assessment of Lourdes.

CORRESPONDENCE

Dental Dinner

SIR, Readers of the *Gazette* are reminded that the Dinner to celebrate the 75th anniversary of the foundation of the Dental Hospital and School is being held at the Dorchester Hotel on Wednesday, 14th October, 1964. A few tickets are still available and any who wish to be present and have not yet applied for tickets should do so without delay. Application should be made to the Clerk to the Governors, Guy's Hospital, London, S.E.1. The cost of the tickets is £4 4s. 0d. per head inclusive of wines, cigars, cigarettes and liqueurs.

Yours, etc.,

F. S. WARNER,
Dean of Dental Studies.

Guy's Hospital,
London, S.E.1.

Students' Club

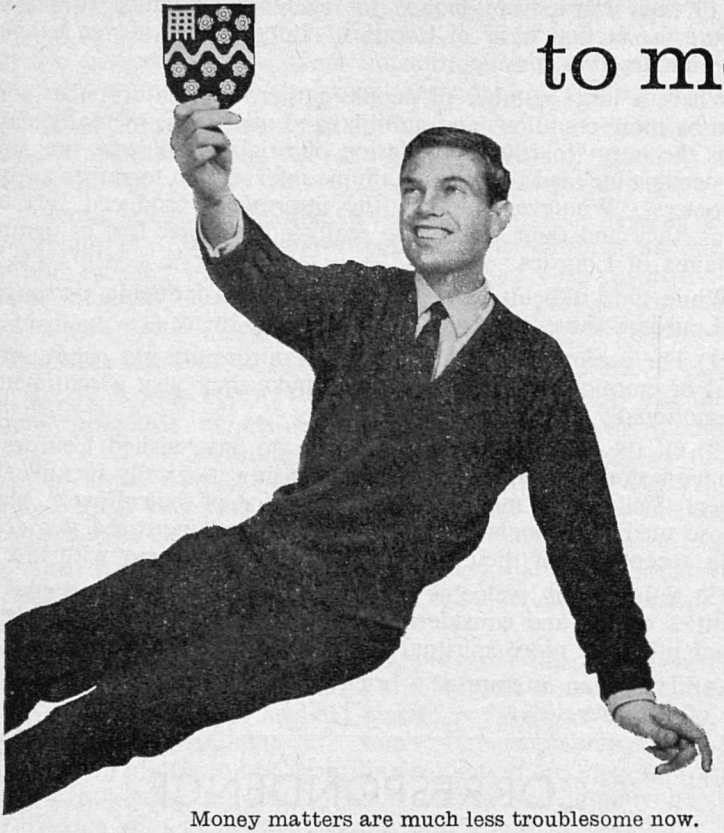
SIR, In order to celebrate the opening of the new premises, the Students' Club will be holding an Autumn Dance on Friday, 6th November, from 7.30 p.m. to midnight. Dancing to Bill Savill's Band and Paul and the Travellers. Double tickets will be on sale shortly at 15s. each.

Yours, etc.,

ANDREW WINSKILL,
(Social Secretary, Students' Club).

Guy's Hospital.

Full marks to me!



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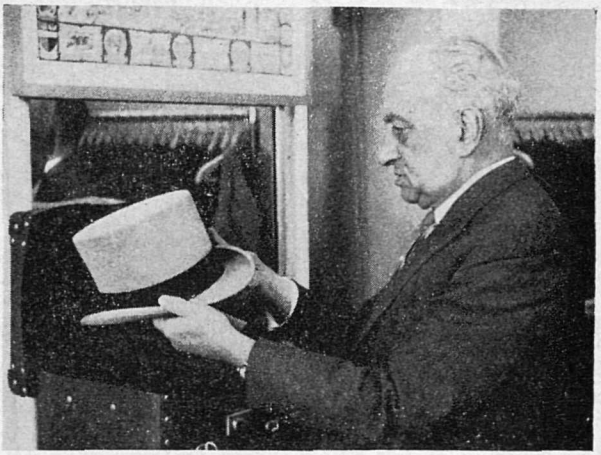
PROFILE

Sydney da Costa



" You may as well go stand upon the beach and bid the main flood bate his usual height; you may as well use question with the wolf, why he hath made the ewe bleat for the lamb; you may as well forbid the mountain pines to wag their high tops, and to make no noise when they are fretted with the gusts of heaven; you may as well do anything most hard, as seek to soften that—than which what's harder?—His Jewish heart."

In 1901, Sydney da Costa joined his father's business as a bespoke tailor in the Mile End Road, the war came and passed, and Joe da Costa and his son left the East End to take premises on London Bridge Approach, where they were to stay for 43 years, his father continuing until 1936, when he retired with 20 years of life ahead of him before dying at the grand age of 92. The years at London Bridge have served to strengthen his ties with the hospital, everyone receiving courteous attention from a tailor who was often, as he is now, more sartorially difficult to please than his customers. He speaks proudly of his associations with Guy's; he himself wanted to be a doctor. No deposit is charged on dress suits and unfortunately they are sometimes not promptly returned, due, no doubt, to their embellishment with the fabulous fruits of wedding feasts. In May 1963, the premises were moved to Borough High Street, the buildings in London Bridge Approach were to make way for better things.

Ye Olde Tabard, da Costa's new shop, had become a financial risk as a pub and was converted after more than 650 years' history as an ale house. Chaucer's " Canterbury Tales " mentions The Tabard where " The rooms and stables of the inn were wide; all was of the best ". It was twice rebuilt in the 16th century before construction of the present brick building.

Sydney da Costa considers himself a fortunate man who was once able to do half-an-hour's work in twenty-five minutes; now the position is reversed, but he is 77 and the greater part of his very full life has been spent in the propagation of innumerable charitable institutions. He is president, representative member and organiser of several committees, communities and societies. His generosity is legendary amongst those who know him, charity is his nature.

" To bait fish withal: if it will feed nothing else, it will feed my revenge. He hath disgraced me and hindered me half a million, laughed at my losses, mocked my gains, scorned my nation, thwarted my bargains, cooled my friends, heated my enemies; and what's his reason? I am a Jew. Hath not a Jew eyes? Hath not a Jew hands, organs, dimensions, senses, affections, passion? fed with the same food, hurt with the same weapons, subject to the same diseases, healed by the same means, warmed and cooled by the same winter and summer, as a Christian is?"

The former words are Antonio's; the latter those of Shylock.

PAUL BOWDEN.

SPORT

RUGBY FOOTBALL

Blackheath included Harris and Egwuatu in their side, which beat the Hospital 16—3 at the Rectory Field. Sharp, who was injured, was replaced by Brown, and this was the only change in the Guy's side which beat Bromley the week before. The pack played well and gained an equal share of the ball throughout the game. The threequarters, however, lacked penetration, whereas their counterparts were always threatening danger when in possession. Several penalties were awarded in favour of Guy's, but unfortunately the kicking of Morris was somewhat awry. Edgar late in the game dropped a goal to secure Guy's only points. Egwuatu was covered well by Fleming-Jones and was given little chance of any threatening moves. The Blackheath score consisted of two goals, a try and a penalty goal.

In a mid-week game against Cambridge City, Guy's started well and threw the ball around in grand style. After ten minutes, however, they ceased to maintain the pressure, and although Edgar scored a good opportunist try which was converted, and Morris again being on target with a penalty goal, the Guy's play deteriorated sadly. The forwards were unable to get possession, and when the ball was secured it was not put to good use. Cambridge took the chances they received and wiped out the arrears with two goals and a try to win 13—8.

A below strength side was disappointingly beaten by the Old Askeans. Just before half-time, Fleming-Jones had to leave the field with an injured ankle, and a below par Baker took over on the left-wing. The Askeans started well and upset Guy's by the powerful running of their backs. The Hospital were on the defensive for most of the first half and were 8—0 down at the change-over. In the second half more of the ball was seen by the home side with Ashcroft hooking well, and Peace in his first game of the season, dominating the lines-out. Although the depleted hospital side had several scoring chances, it was not until near the finish that Morris came into the attack and passed out to Kerner, who ran strongly to cross the line near the corner flag. Morris made an excellent conversion after missing an earlier penalty.

ASSOCIATION FOOTBALL

Guy's opened the 1964-65 football season with a fixture against the Hospital Staff at H.O.P. The team showed few changes from last season's cup-winning side, the only difference being the inclusion of R. Holness at right wing, and R. G. Shepherd, who was playing his last game for the hospital, at left-half in place of Alan Palmer, who has left Guy's. After a very uninspiring and sometimes pathetic display, Guy's eventually ran out comfortable winners, the score being 7—0. This very poor showing on the part of the Guy's team was due mainly to lack of fitness and match practice, and it is evident that, if the team is going to retain the Hospitals' Cup this season and strive for further honours, all players must train conscientiously and put far more effort into the game.

Guy's played their second match of the season in the form of a "friendly" against the London Hospital at H.O.P. Due to certain people being late in arriving, Guy's started the game with nine men, and twenty minutes of the game had been played before Guy's could boast a full side. Up to this time the game had been fairly even with the London Hospital having a slight advantage, and indeed they might well have scored but for some efficient goalkeeping by Parry. However, Guy's gradually got on top with Elias and Powell-Jackson controlling mid-field play fairly well at times, and several good goal-scoring chances were wasted, the chief offender being A. Atkins on the left wing. However, mid-way through the second half, Elias controlled the ball on the edge of the visitors' penalty area and cracked home a left-foot shot to give Guy's the lead. This gave Guy's added confidence and they increased their lead further through M. Anto after Powell-Jackson had created a perfect opening. Play deteriorated slightly after this goal, and Guy's eventually won 2—0.

This game showed a definite improvement on the display against the Staff in the previous match and was quite encouraging from the point that the defence played well with Holden and Parry performing quite competently.

HOCKEY

After an excellent year both in terms of results and numbers of people playing and enjoying the game, the club is hopeful for another successful season.

The permanent services of R. L. Strickland and J. Sedgwick have been lost and it would be foolish to believe that their vast experience, skill and enthusiasm will be easy to replace. However, there is much talent in the club and, given a reasonable influx of promising Freshmen, the future looks bright.

The first eleven has an above average defence, five of whom have played together for two years now, and four represented the United Hospitals. If the forwards can produce the class of hockey and aggression that was seen on occasions last year, then they should have a fruitful season, and Appleby in particular should be worth many goals.

The Club is fortunate in having the use of the Peak Frean ground at Lee for a few games in the season; and they hope for a regular pitch there the following year. This follows a strong friendship fostered mainly by the 4th eleven and continued in the summer with two friendly games. This pitch will act as a welcome additional home ground, for in the past the junior teams have had much travelling to do, and it is their continued enthusiasm that is the club's strength.

The ambition this year is to better last season's record of only three defeats and, of course, to retain the senior and junior cups. With the continuing keen spirit in the club this should be within their capabilities.

Fixtures remain the same for the senior teams with a prospect of improvement next year following the recent successes. The 3rd and 4th teams have stronger fixtures with matches against Chelmsford and several useful Works elevens.

The Club would like to make its usual plea for volunteers to umpire for the junior teams—and they teach hockey knowledge while assuming drinking knowledge.

Trials: October 3rd and October 7th.

First Fixture: South Saxons, October 10th.

Freshmen v. President's XI (Spirochaetes), October 11th, when all club members will be welcome.

Reports and Results

CRICKET

RETROSPECT, 1964

1st XI P. 28; W. 15; L. 10; D. 3.

2nd XI P. 15; W. 10; L. 1; D. 4.

Perhaps the finest hour of the Club this season was when St. Mary's were beaten in the second Round of the Cup, after an epic struggle. Unfortunately, in the Final, Guy's never raised their chances from the floor and were convincingly beaten by the London.

The highlight of the season's individual performances was some devastating batting by Hambleton early in the summer when he scored three centuries; had not so many games been cancelled he would certainly have reached a record number of runs in a Hospital season.

The fixture against Highland Court proved a success, and next year a fixture has been arranged against Dover, to be played on the preceding day. Of the other new fixtures, London New Zealand C.C. were convincingly beaten, and the same thing happened to a weak Guy's side at Addiscombe.

Knott and Walter provided the backbone of the bowling attack, both passing the half-century mark of wickets, and they were ably supported by Davoodbhoy and Crafts. While the bowling was generally of a high standard, the batting, apart from Hambleton, never rose above mediocrity. The recognised opening partnership never gave the side a firm foundation on which to build, and while the batting was theoretically "without a tail", far too much responsibility fell on Hambleton and the lower order members—the middle order failing time and again.

The 2nd XI enjoyed a highly successful season under the expert captaincy of Procter. They were beaten only once, and beat the London in the Junior Cup Final by one wicket after an exciting battle.

The ranks next year will be considerably depleted as Price, Huins, and Myall have qualified, and Knott, Walter, and Hambleton are on the brink of doing so in the near future —one hopes that there will be some good newcomers, as for the past ten years Guy's has been rated high in the club cricket circles.

I would like to thank all the officers of the Club for all the hard work they have put in, and for their helpful advice on more than one occasion—some most enjoyable cricket has been played. My thanks also to the President and Vice-Presidents of the Club and a Governor of the Hospital for their continued support of the Club throughout the season, and especially in the Cup games.

NIGEL J. KNOTT.

Essentials of Bacteriology

R. G. White, M.A., D.M.

This textbook explains to the medical and dental student, as briefly as possible, exactly what bacteria and fungi diseases and rickettsiae do. Prominence has been given in the text to those facts which are of prime importance to the physician in explaining the role of bacteria in the causation of disease.

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Is history " bunk "? Well, it is if you are dealing with a static subject where the past is the same as the present and the future. But oddly enough it is a necessity in a subject like medicine where so much is new and changing—a necessity for those who want understanding and judgment. No one can tell you where you are going, but you can find out where you have come from and so plot a bearing. Further, though techniques change, our possible attitudes to medicine are limited. These attitudes were all held at one time or another by our predecessors, and we can profit by their experience. What are diseases and should we have them? What happens when medicine goes academic? What is the cause? What is happening now? With an hour or two of reading you can see the main lines of the perspective and follow them up for yourself. Here is an admirably clear and short book expressly for the clinical student.

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This up-to-date 4th edition of Dr. Ham's world-famous textbook incorporates the very latest knowledge resulting from the impact of physics and biochemistry on histology and applies the tools and methods evolving from these sciences—particularly the electron microscope to its study.

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Textbook of Neuroanatomy

H. C. Elliot, Ph. D.

This book, though technically a textbook of neuroanatomy, includes references to several other specialities—references which will both broaden and deepen the understanding. The general plan of presentation is development. Each chapter has an introductory outline, defining key terms and relating each topic to the entire subject.

85s. net

Pitman Medical Publishing Co. Ltd.,
46 Charlotte Street, London, W.1

CRICKET AVERAGES 1964

Batting (5 completed innings qualify)

		N.O.	H.S.	Runs	Av.
G. Hambleton	..	27	4	136*	964	41.9
M. Walter	..	14	7	69*	200	28.6
J. Crafts	..	17	2	67	382	25.5
D. Biggs	..	14	2	68	294	24.5
T. Huins	..	12	1	62	250	22.7
J. Powell-Jackson	..	16	2	51*	315	22.5
I. Reekie	..	11	3	57*	177	22.1
R. W. Myall	..	8	2	45	117	19.5
M. Appleby	..	22	2	47	287	14.4
D. Silk	..	23	1	52	305	13.9
H. MacGregor	..	9	1	31	110	13.8
N. J. Knott	..	19	5	42	187	13.4
S Davoodbhoy	..	14	1	55	156	12.0
E. Price	..	19	5	28	160	11.4
M. Jones	..	15	3	44*	100	8.3

Bowling (10 wickets qualify)

		O.	M.	R.	W.	Av.
M. Walter	..	264.4	72	633	51	12.4
N. Knott	..	286.3	81	716	51	14.0
S Davoodbhoy	..	217.3	60	568	38	14.9
J. Crafts	..	170	29	560	35	16.0
M. Appleby	..	77.4	15	321	10	32.1

Also Bowled:

		O.	M.	R.	W.
I. Reekie	..	20.2	3	81	7
T. Huins	..	36	8	82	5
M. Sutton	..	46	11	151	8
G. Hambleton	..	65.1	19	177	9

HOSPITAL INFORMATION

APPOINTMENTS VACANT

GUY'S HOSPITAL

Applications are invited for the post of **Senior Registrar in Thoracic Surgery,** with duties commencing as soon as possible. Application forms are available from, and should be returned to, the Superintendent, Guy's Hospital, S.E.1, not later than **12th October, 1964.**

Applications are invited for the appointment of **Full-time Senior Registrar/Registrar in Clinical and Oral Surgery,** with duties to commence as soon as possible. Forms of application are obtainable from, and should be lodged with, the Superintendent, Guy's Hospital, London, S.E.1, not later than **Wednesday, 21st October, 1964.**

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GAIN.—To Martin and Frances (née Adams) a son, Timothy Charles Thorold, a brother for Fiona.

DEATHS

ALLEN.—Richard Alfred, M.B., B.S., on September 6th. Suddenly at Willobrook, Sible Hedingham, Halstead, Essex.

COX.—On September 8th, 1964, at the Brompton Hospital, Betty (née Padbury, S.R.N.), wife of Dr. A. G. C. Cox, of 9, Lansdowne Road, Wimbledon, S.W.20.

PAPERS BY GUY'S MEN

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Correction

We apologise for a mistake in the previous issue when the wrong paper was attributed to Dr. I. Macdonald. The correct reference should read:

Macdonald, I. and Braithwaite, Diana M. The influence of dietary carbohydrates on the lipid pattern in serum and in adipose tissue. *Clin. Sci.*, 1964, **27**, 23.

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NOTICE

Art Exhibition

The organisers of this year's Art Exhibition, to be held in the Gordon Museum from 26th October to 6th November, welcome mounted sketches and paintings, sculptures and pottery, etc., from anyone on the staff at Guy's and students. Entries should be labelled with artist's name and department, and the price of exhibit if for sale, and left in the museum technician's room in the basement of the Medical School between 19th and 23rd October.

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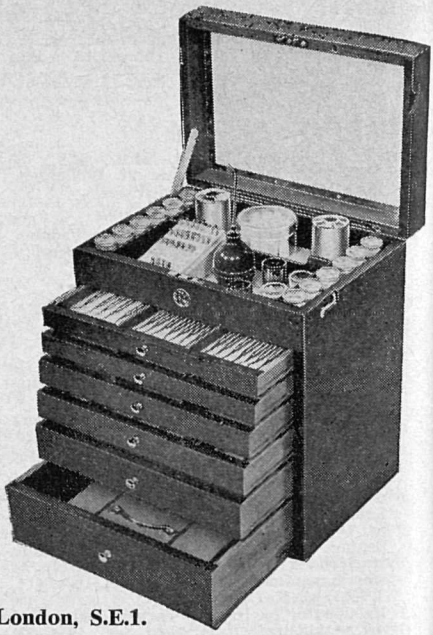

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GUY'S HOSPITAL GAZETTE

Vol. 78
No. 1989
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17th October, 1964

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Editors *T. C. Davis*
B. H. Hicks

Sports Correspondent *N. J. Knott*

Guy's Hospital, London

PASSIM

Dare quam Accipere

"Sir, Perhaps you will oblige me by inserting in the pages of your journal the following statement and inquiry:—Last Sunday morning, I was going round the wards of Guy's Hospital with Mr. B. Cooper: as is usual, on Sunday, there were very few students present; but all who were there had their hats off excepting me. As I did not feel myself shrinking into less than nothing by the side of Mr. Cooper, I kept my hat on. We had walked half through one of the wards when Mr. C. turned to me, and sharply said: 'Sir, if you cannot show proper respect to your superiors, I desire that you will leave the room; and until you have made an apology to me for your vulgar and ungentlemanly conduct, I shall not allow you to visit these patients with me again!' Under these circumstances, Mr. Editor, what shall I do? My spirit objects to offering any apology, yet if I refuse I shall be debarred from seeing Mr. Cooper's cases, and probably expelled, for a certain period, as was a gentleman a short time ago, who had *behaved badly at church!* I am, Sir, your obedient servant, James Clark Larren."

The Editor of *The Lancet,* November 1840, observed somewhat dryly (perhaps he was from *another* hospital) that "Much greater grievances exist in Guy's Hospital than such as that of being required to walk uncovered in the wards . . . Respecting the expulsion of students from the wards it may be observed that the rights of the pupils in the hospital do not hang upon hat-pegs, or rest upon pew-cushions."

For those newly arrived in these hat-bound precints there is still much to be questioned, also much to be admired. There may be no Drs. Bright and Addison teaching medicine at £4 4s. 0d. a course, but this hospital that Guy founded for incurables yet boasts a staff as distinguished as any. It is, of course, a different Guy's, for a society is what its individuals are, is as good as they are good, goes in the direction which they take, and stands at the heights to which they aspire. It is what each head and heart will it to be, and depends on them for its tone, taste, atmosphere, spirit, its essence.

Dr. Ashwell's introductory lecture to students of Guy's, October 24th, 1840: ". . . you have resolved to commence and continue a career of protracted, diligent, and successful inquiry; only begin with ardour, prosecute your studies with untiring industry, love truth more than yourselves and your prejudices, yea, more than all other sublunary subjects, and I know the result of your exertions will not only be knowledge, which is valuable, but wisdom also, which is above all price". Balance all that with just a few *other sublunary subjects,* and one can even enjoy it!

We would be pleased to publish brief details of activities of the Guy's societies in the next term, if secretaries will send us their programmes *before* Friday, 23rd October.

Biennial Dinner

All venerable institutions have means whereby their different members and generations can make contact. The most pleasant way is to be able to sit down together and enjoy good food and wine and later to reflect and drink on happy memories and hopes for the future. "See you in two years", has a ring of finality about it upon which the fabric of societies are constructed. All in all the Guy's Biennial Dinner is an excellent function; and this year was no exception. The range of ages took in those qualifying in 1960 until the new boys of this summer, but they were all equally welcome and at ease. This delightful air of conviviality pervaded the dinner and the speeches were tactfully and wittily short. Mr. Slesinger was welcomed as the new Chairman of the Board of Governors, an uncommonly approved appointment. The food was good, and spicy conversation was thrown from guest to guest with good humour. To Mr. Eckhoff and Mr. Goodliffe all the guests will feel not an uncertain gratitude.

We are sorry to hear that Mr. George Winston, formerly Wills Librarian, is ill in hospital. We are sure that all his friends will wish him a speedy recovery.

We offer our congratulations to the following on their appointments:—

Dr. M. H. Lessof, to consultant in general medicine, Greenwich and Deptford hospital group.

Dr. D. M. McLaren, to consultant pathologist, Stockport and Buxton hospital group.

Dr. B. R. P. Murray, to consultant anaesthetist, Brighton and Lewes hospital group.

Dr. I. Rocker, to consultant obstetrician and gynaecologist, Newport and East Monmouthshire hospital group.

Dr. D. N. Whitmore, to consultant pathologist, Lewisham hospital group.

Dr. K. J. Zilkha, to consultant physician, the National Hospital, Queen's Square, London.

GUY'S DIARY

OCTOBER

EXHIBITION.			*Fractures.*
19th	M.	1.00	Mr. GIBBERD. Clinical Lecture. *Maternal Mortality.*
20th	T.	1.00	Professor ATKINS. Clinical Lecture. *The Nature of Cancer.*
22nd	Th.	1.00	Professor POLANI. Clinical Lecture. *Sex and Intersexes.*
23rd	F.	1.00	Dr. KAUNTZE. Clinical Lecture. *Emphysema.*
26th	Th.	1.00	Sir Russell BROCK. Clinical Lecture. *Chest Injuries.*
29th	Th.	1.00	Mr. WASS. *Diarrhoea.*
29th	Th.	5.00	Professor ATKINS. At the Royal College of Surgeons, the Thomas Vicary Lecture. *"The Darwin Tradition."*

ACUTE BARBITURATE INTOXICATION

Christopher Mallinson

Acute barbiturate intoxication is increasingly common in the western world. In 1958 in New York alone, 1,000 cases were reported[1], and the number of cases admitted to hospital has nearly doubled in most "western" countries since 1945. In face of this rising incidence it is striking that there are fewer deaths from this cause now than in 1945, and the death-rate has fallen from above 25% of hospital admissions to below $1\frac{1}{2}\%$[2].

Nevertheless, the number of deaths is still large: in England and Wales in 1961 about 1,100 persons died from barbiturate poisoning. 800 of these were suicides, witness to the fact that barbiturate is second only to coal gas as a suicide agent and is much the commonest suicide drug. The remaining 303 deaths were not suicidal but were due to accidental overdosage with this readily available hypnotic[3].

In practical terms these figures indicate that barbiturate overdosage is a common medical emergency, that its treatment has advanced strikingly in 20 years and that since one quarter of the cases are not suicidal, no grounds exist for withholding treatment for "someone who wanted to die".

Pharmacology

In 1903 the diethyl derivative of Barbituric Acid was found to be a useful hypnotic, and was introduced as Barbital, (Veronal). Since then the two ethyl side chains of barbital have been replaced in over 2,000 different combinations to produce as many barbiturates. The side chains confer individual properties of solubility, affinity for plasma proteins, speed of onset and duration of action, and potency. All the derivatives in therapeutic dosage have the same selective depressant action on the higher central nervous system, by some unexplained intracellular mechanism.

The drugs are classified by their duration of action:—

Long acting drugs, e.g., Phenobarbitone, Barbitone, Aprobarbital, Dial (effect from 8—24 hours).

Short acting drugs ("short" and "intermediate" but not "very short" acting drugs). Amylobarbitone, butobarbitone (Soneryl), pentobarbitone (Nembutal), quinalbarbitone (Secondal), cyclobarbitone (Phanodorm), (effect from 2—8 hours).

Barbiturates are absorbed from the whole length of the gastrointestinal tract as undissociated barbituric acid, whence they are rapidly distributed between plasma, extracellular and intracellular fluid (ECF and ICF), into nearly every tissue (e.g. hair, skin, tears, C.S.F.)[4].

Absorption and maximum blood levels are achieved faster with the shorter acting drugs (1—6 hours). Barbitone and phenobarbitone take from 4—8 and 12—18 hours respectively. Hence the observation that only with short acting drugs can the dosage be estimated accurately from a blood level in the early, clinically important, period after ingestion[5].

Plasma protein binding occurs[8]; very little with barbitone, considerably with some other derivatives, possibly affecting distribution in the tissue compartments[5] [6].

Degradation to inactive metabolites occurs in the liver and disposes of all the short, a large quantity of the medium, and little of the longer acting drugs[5].

Renal excretion disposes of 65–90% of barbitone, 27–31% of phenobarbitone, and almost no pentobarbitone or amytal. Hence renal impairment prolongs the retention and coma-time of long-acting drugs more than short. Also it is clear why barbitone is a safe hypnotic for patients with liver disease.

Toxic Effects

A mild overdose causes confusion, irritability, slurring speech, ataxia and nystagmus. Stupor follows (patient abnormally deeply asleep, scarcely and only temporarily rousable). The effects usually wear off in several hours.

In more severe cases a gradation of intoxication is seen.

1. Coma.

(Cannot answer a question or obey simple commands after vocal or painful stimuli.) With good nursing coma in itself is not dangerous even if prolonged.

The real dangers of barbiturate intoxication lie in the following progression of events:[12]

2. Areflexia.

Diminished or absent corneal, gag, cough and tendon reflexes are seen (but the pupillary and plantar responses are notoriously capricious).

In this state the patient is prone to serious laryngeal obstruction by pharyngeal mucus, etc., and to inhalation of this into the lungs.

A phase of increased vagal reflex activity may precede areflexia, in which laryngeal spasm, cardiac slowing or even arrest may occur on trivial pharyngeal stimulation.

3. Respiratory Depression.

The rate and depth of respiration are reduced since the medullary centre of respiration is directly depressed by barbiturate early in severe coma. The centre becomes insensitive first to the "drive" of raised pCO_2 and acidity, and finally to hypoxia. This and the effects of areflexia may cause the complications of:—

Hypostatic and Aspiration pneumonia.
Sputum retention causing obstruction and atelectasis.
Respiratory arrest.
Hypoxia, and sometimes Hypercapnea.

Hypoxia rather than barbiturate itself is responsible for any residual brain damage after recovery[9].

4. Hypotension.

(a) Arteriolar tone and hence peripheral resistance is reduced by the depressant action of barbiturate on the vasomotor centre, and by a direct relaxant effect on the arteriolar smooth muscle.

(b) Myocardial contractility, hence cardiac output, is reduced by a direct effect on heart muscle and by hypoxia. ECG changes occur and are ascribed to the latter[4].

(c) Relative hypovolaemia due to pooling reduces venous return slightly. A short period of warm hypotension is followed by frank shock with cold sweaty skin, low diastolic, systolic and pulse pressure (thready pulse), poor tissue perfusion with haemoconcentration and capillary slowing.

Renal Function

Moderate overdosage reduces the rate of urine formation:

(1) Antidiuretic hormone release is stimulated[7].
(2) Dehydration occurs in prolonged coma, unless treated.
(3) Renal plasma flow is reduced, but usually filtration rate is preserved, possibly by selective efferent arteriolar constriction.

Severe hypotension and hypoxia cause tubular damage and oliguric renal failure. This complication was common and often fatal before adequate anti-shock treatment was used, and must be detected early (see assessment), since it alters the whole scheme of treatment of a severe case[12].

Clinical Problems

The patient is assessed on admission, taking into account the factors which affect prognosis. *The most valuable indication of the extent to which the drug is affecting a particular patient is still the Clinical Examination.*

(a) *Dosage.* This is rarely accurately known and varies in effect on different patients. A lethal dose is about 20 times the therapeutic dose—5G is a high dose of phenobarbitone comparable with 2G of shorter acting drugs [8].

(b) *The derivative used:* in about half the cases this will be unknown[20]. The chromatographic method for identifying specific barbiturates is not yet available at Guy's. Short acting drugs kill rapidly, and often before admission: long acting drugs do so after prolonged hypoxia or shock and usually in hospital[5].

(c) *Plasma Barbiturate Levels:* these are estimated at intervals to establish a "peak level" which reflects severity and can be used to calculate dosage, and as an indication for dialysis. The toxicity of a

given level is increased by senility, intercurrent hepatic, renal, cardiac or respiratory disease, alcohol and other poisons and above all *hypoxia* or *shock*[5]. It is decreased by habituation to barbiturates, and cross-tolerance occurs[4].

E.g.:

Phenobarbitone: Deep coma 10 mg.%. Waking level 6–4 mg.%

Amylobarbitone: Deep coma 3–4 mg.%. Waking level $1\frac{1}{2}$–$\frac{1}{2}$ mg.%.

(d) Reeds "Physiological" grading of *depth of coma* was used by Ferguson in 95 cases in coma[1] [28].

	GRADE	CRITERIA	DURATION (HOURS)	AVERAGE (HOURS)	NUMBER OF PATIENTS
	O	Not in coma. Answers questions.	Excluded from the series.		
Light	I	Coma. Withdraws from pain	1–52	11	45
Light	II	Coma. No withdrawal	7–42	12	13
Deep	III	Coma. Reflexes absent	4–96	26	21
Deep	IV	Coma. Shock and/or Respiratory Failure	17–48	37	16

Notes:

1. One cannot predict duration from depth of coma. E.g., one case lasted 52 hours in Grade I coma.

2. A severe, painful stimulus often upgrades an apparent III to I or II.

3. Only 4 patients sank deeper than the grade seen on admission, though other series have shown more variable progress.

4. On average, though not necessarily in the individual, the depth is related to duration and dosage and to complications of shock and respiratory failure.

Renal Function

A catheter specimen of urine examined for cells, casts, sugar and protein. If the S..G is above 1015 and urea above 1.5G/100ml, and a 30-minute timed sample is formed at over $\frac{1}{2}$ml/minute the kidneys are normal. If a low rate of flow is associated with urea of 500–1000 mg/100ml and S.G. of 1010, renal failure is developing; if urea is below 500 mg% it is probably established. Thus simple dehydration is distinguishable from renal failure at an early stage.

Investigations

A. Blood.

1. Hb. P.C.V. Total serum protein. Daily—to follow hydration.

2. Urea, electrolytes as a baseline. Repeat as progress requires.

3. Blood barbiturate: at intervals to establish a peak level, ideally hourly or 2-hourly (10 ml. of heparinized blood), and estimated 3–4 at a time.

B. Urine.

1. A timed catheter-specimen for $\frac{1}{2}$–1 hour: microscopy for casts, cells, protein.

2. Urea concentration and S.G.

3. Save in 8-hour batches until the patient is conscious. Measure volume, electrolyte and barbiturate level in each. (Creatinine clearance at low levels is rather inaccurate and not essential).

C. Chest X-ray daily while in coma[18].

D. ECG where indicated.

E. Blood gases in severe cases (Grade III, IV) where available and as indicated[9].

Management

Conscious Patients. No treatment is needed in most cases. Occasionally coma occurs long after ingestion[10], but gastric lavage in the conscious is only performed if a large dose has been taken within 4 hours[5] [11] [12].

Lavage within 4 hours of ingestion only occasionally recovers enough barbiturate to be significant. After 4 hours it is not worthwhile. In a conscious or an intubated areflexic patient the procedure is safe [10]. If reflexes are present both lavage and endotracheal intubation can induce vomiting, vagal reflexes, etc., and the usual barbiturate yield is too poor to justify the risk of intubation merely to cover lavage. In many centres lavage is never used[12].

Unconscious Patients. Immediately make certain that both the airway and ventilation are adequate. This takes precedence over all else:

Place the patient in the left *lateral* position, with the jaws forward and neck extended, and the foot of the bed raised 4 to 6 inches.

(I) A patient with reflexes can maintain an airway and ventilation on breathing air if this is done, and will not obstruct even if vomiting or regurgitation occurs: a Guedal airway and deep pharyngeal suction are unnecessary, poorly tolerated and may themselves cause vomiting, laryngeal spasm and cardiac slowing or asystole at this stage.

(II) The areflexic patient: inhalation of mucus, etc., is unavoidable unless a cuffed endotracheal tube is inserted by the Duty Anaesthetist. After 24 hours the tube will cause laryngeal ulceration and must be replaced by tracheostomy[9]. Otherwise tracheostomy is only used in patients with prolonged laryngeal spasm (often iatrogenic) or in those with impassable neck or jaw deformities.

(III) If an adequate airway does not keep the patient pink on breathing air, then ventilatory failure is present, either due to pulmonary complications or to reduced rate (below 10/minute) and/or depth of respiration. If high oxygen concentrations are used here the patient may become misleadingly pink again, yet be in danger from a rising pCO_2. The only answer is to assist respiration by a ventilator or by respiratory stimulants. Other pointers to the likelihood of respiratory failure, which is not always obvious in a shocked patient, are prolonged or deep coma (Grade III and IV), shock which resists treatment, an unexpected rise in B.P. which suggests rising CO_2, and significant X-ray changes of pulmonary oedema which precede clinical signs by several hours[9].

Blood gas estimations should clinch the diagnosis but when these are unavailable a trial of ventilator therapy is indicated since the situation is desperate. A mechanical intermittent positive pressure respirator delivering a fixed volume is used. Not more than 30–50% oxygen is necessary apart from the immediate treatment of pulmonary oedema when 100% oxygen is used.

While the ventilator is set up, an "Oxford" hand bellows or an Ambu bag is used with 100% oxygen entrained or, failing this, mouth-to-mouth respiration with a double Guedel airway.

Analeptics

Megimide, Vandid, Nikethamide, Amiphenazole have no specific antagonistic effect against barbiturates[2] [14] [23]. They act as central respiratory stimulants, and in this way would be of use in deep coma if their action were more sustained, reliable and free of side effects, which may be serious[15] [12]. At present they are of use only as a stopgap until some form of assisted ventilation can be reached. In hospital therefore they should never be necessary and may be abandoned.

A. Nurse in the position described, turning 2-hourly, with frappage and passive leg movements twice daily.

B. Pulmonary collapse demands immediate bronchoscopy and suction. Only established pulmonary infection is treated with antibiotic. All the critical evidence shows that in comatose patients on prophylactic antibiotics chest infections are as frequent, and resistant organisms more so than in untreated controls[16] [17]. This is also true of urethral catheterization with closed drainage.

C. Pulmonary oedema, either infectious or cardiac, requires ventilator therapy with 100% oxygen, the former requires antibiotics, the latter rapid diuretic therapy with intravenous thiazide or hypertonic mannitol.

Hypotension

If the brachial arterial blood pressure falls below 100/60 with the bed blocked it must be raised by the use of pressor agents, and/or a plasma expander[12]. Recent methods of improving tissue perfusion by controlled dilation with chlorpromazine and by improving sluggish

capillary blood flow with Rheomacrodex[19] have not yet been reported in barbiturate intoxication.

Pressor agents all cause arteriolar constriction in muscle and skin, and spare the splanchnic, and, usually the renal arterioles. In addition aramine and methoxamine increase stroke volume by slowing the rate: aramine increases myocardial contractility. Start by a single intravenous injection—if this has no effect within 15 minutes try another pressor. Continue by repeated intramuscular injections or an intravenous infusion. The choice is:—

Aramine—2½–5 mg. i.v., 2–10 mg. i.m., 5–200 mg./500 ml. infusion.

Methoxamine—5–10 mg. i.v., 5–20 mg. i.m., 70 mg./500 ml. i.v.

Methedrine—3–6 mg. i.v., 15–30 mg. i.m., Mephine 15 mg. i.m.

Intravenous nor-adrenaline may work where these fail. 2 mg./500 c.c. 5% dextrose via polythene catheter at a rate to maintain the B.P. which must be checked every 5–10 minutes. Infusions of the other pressors are less tricky and require a 15–20 minute B.P. record.

Plasma expanders such as dextraven are also useful in the event of haemoconcentration or pooling. Dextraven ½–1 litre within 12 hours should suffice[18].

Fluid Replacement

Since coma time is quite unpredictable and intestinal absorption unreliable, an intravenous drip should be set up on all unconscious patients[20], and for real accuracy an indwelling bladder catheter too. (Sterile gloves and no-touch technique). Moderate dehydration is common, although difficult to assess initially. 1½–2 litres of fluid/24 hours (5% dextrose: N saline in a 3 : 1 ratio) are used in the milder cases.

In these conservative measures lies the success of the "Danish Method" in reducing the overall mortality of Barbiturate Intoxication from 25% to 1% since 1945. However, in the 10% of patients in deepest coma the mortality is nearer 10%. For this group three additional measures are available, each of which actually reduces coma time by accelerating the removal of barbiturate from the blood[26], and by this means reduces the occurrence or severity of potentially lethal complications.

(1) Forced alkaline diuresis.

(2) Peritoneal dialysis.

(3) Haemodialysis with the Artificial Kidney.

(4) Combinations of these methods.

All three methods are more effective in removing the longer acting substances than the shorter, but improved excretion and clinical progress are reported with phenobarbitone, barbitone, cyclobarbitone, pentobarbitone, amylobarbitone, butobarbitone and quinalbarbitone, among other less commonly used drugs[8].

Forced Alkaline Diuresis

A. Renal excretion of barbiturate can be increased by raising the rate of urine formation[22]. In 1949 Ohlsson (Sweden) reported good results from "blood lavage": a daily diuresis of 5 litres is produced by infusion of 7 litres of fluid with a mercurial tubular diuretic.

B. Alkalinization of the urine reduces tubular reabsorption of barbiturate[23]. Mollaret (France 1959) reports the effect of sodium bicarbonate and a $3\frac{1}{2}$ litres urine output at pH 7.8[25].

C. Lassen (Denmark 1960) combines both methods using sodium lactate as alkali and 15% urea as osmotic diuretic with a special hypotonic electrolyte-dextrose solution. 12 litres of urine at pH $7\frac{1}{2}$–8 are produced by infusion at 500ml./hour, and coma time is reckoned to be reduced to $\frac{1}{4}$, $\frac{1}{3}$ or $\frac{1}{2}$, depending on the drug (only long acting drugs attempted in this series). He reports the method as simple, effective and in some cases obviously life-saving.

D. Mannitol is a hexose which is neither removed from the blood nor re-absorbed from the renal tubules but is, of course, filtered through the glomeruli. It is thus an osmotic diuretic, and infusion of 100 ml. of a 12.5% solution with 500 ml. N. saline in 30 or 60 minutes will produce a brisk diuresis within 15 minutes in a severely dehydrated person, and a rather slower response in a patient with impending acute renal failure. It has no result in established renal failure. The effect on early renal failure is "protective", presumably by maintaining urine flow through the damaged tubules and preventing complete stasis, and in such patients a brisk diuresis may be maintained safely[27]. The electrolyte content of the urine produced is (approx.) Na 60 MEq/litre, K 40 MEq/litre. Thus in a prolonged forced diuresis as used at Guy's a 5% solution is made up in a special dextrose-sodium-potassium-lactate solution to balance this urinary loss. Infusion is increased to 500 ml. hourly to induce a similar diuresis rate. (Check urinary potassium, which may indicate the need for increment to the solution infused.)

E. In most hospitals special solutions are not obtainable and for this reason the simple method of Kennedy[21] will be described here, which uses only stock solutions, and intravenous chlorothiazide as a diuretic. (Hence there is more sodium in the infusion than with mannitol as the sole diuretic.)

INDICATIONS that a reduction in coma time could be life-saving:

Deep coma (Grade III or IV), respiratory complications, intercurrent disease, old age, clinical deterioration, blood level of 8–10 mg.% (long acting) or 3 mg.% (short acting), dose of 5G. (long acting) or 3G. (short acting).

INDICATIONS against using forced diuresis:

Mild coma in which this method is unnecessary. Profound unresponsive shock; cardiac failure; pulmonary oedema; established acute or chronic renal failure; and, above all, no response to a "trial" diuresis, serious overloading during the procedure.

Method

A. Trial diuresis for borderline cases (judged on urinary urea and rate, etc.).

(i) Allow ½–2 hours to stabilise the B.P., respiration, correct dehydration, set up drip and catheter.

(ii) 500 ml. N. saline and 100 ml. 12.5% mannitol i.v. over 1 hour. If no response in 2 hours, repeat. If still no response, abandon this method for dialysis. If response is sluggish continue infusion at the rate of urine formation. If response is adequate continue with B.

B. 1st hour: 1 litre normal saline.

2nd hour: 500 ml. 5% dextrose,

then chlorothiazide 500 mg. intravenously into the rubber. When the diuresis reaches 6–8 ml./minute continue the infusion at 500ml./hour in this rota:

1. 500 ml. M/6 Sodium Lactate.
2. 500 ml. 5% dextrose + 2G Pot. Chlor. (27 MEq).
3. 500 ml. N. saline.

When the urine pH exceeds 8 replace lactate with saline for a rota. Since the kidney can excrete the alkali in 2 litres of M/6 lactate in 24 hours, alkalosis is a rare complication[26]. Collect the urine in 8 hour batches and analyse an aliquot for sodium, potassium and barbiturate. Serum electrolyte 8 hourly at same time. Not more than 1 litre positive balance is allowed and a jugular venous pressure manometer (Novex) may be invaluable in the case where overloading is likely.

Potassium : if indicated add more KC1 to the drip ; Sodium : replace N. saline with 5% dextrose in 2 or 3 rotas if the serum level rises. Calcium chloride 10 mg. (10 ml. 10% solution) i.v. every 8 hours. Heparin 500 u and procaine hydrochloride 5 ml. of 1% solution in each bottle help keep the vein open in what may be a 30–60 hour infusion.

DIALYSIS is necessary when forced diuresis fails or is contra-indicated, and where blood levels are very high (15 mg.% long acting, 6mg. % cyclobarbitone, 4 mg. % other short acting drugs).

Peritoneal Dialysis

Although not necessarily more efficient than a good forced diuresis of 12 litres/day, Peritoneal Dialysis has the advantage of being immediately usable in the presence of the severest renal failure, shock, cardiac failure or pulmonary oedema[30] [31]. Moreover, in contrast to haemodialysis with the conventional artificial kidney, it can be practised in any general hospital, since the simple apparatus and fluids are obtainable commercially and the technique can be learnt in a day or two.

Improved clearance is obtained with an alkaline dialysing fluid and, in shorter acting drugs, with 5% albumen in the fluid[8]. (Although this is usually unobtainable in the quantities required).

In one centre at least, peritoneal dialysis has replaced forced diuresis completely. (Edinburgh).

Haemodialysis

The conventional artificial kidney units are widely scattered, the apparatus is complex and costly and requires prolonged, full-time medical supervision while in use.

Over a 6-hour period haemodialysis is 2/4 times as efficient in removing barbiturate, depending on the drug in question, than forced diuresis or peritoneal dialysis[8] [29]. However, over a 25 hour period, the latter methods nearly "catch up" since they are immediately available, can be started very quickly compared with the 2/3 hours needed to set up the kidney, and can be continued for days on end. Haemodialysis can only be sustained for 6–7 hours in 24 and is an added haemodynamic strain on a shocked patient.

The minicoil kidney is less expensive, can be used at large, is less strain on the patient and may be used over long periods. It is less efficient than conventional "kidneys" and it is not certain how it will compare all-round with peritoneal dialysis.

A combination of two or three methods produces maximum removal rate[8], and currently represents the last word in accelerating recovery until a specific pharmacological antidote is discovered.

A patient is considered to be awake when he can once more answer a question. At this moment the hard work is only just beginning.

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NEW SPEECH FOR NONE

H. B. HOLDEN
F.R.C.S.

The most important problem in the rehabilitation of a patient who has undergone total laryngectomy is that of speech. Following operation the patient finds himself unable to communicate directly, this may produce a severe and very real depression. However, by learning to master the technique of oesophageal speech his major handicap can be overcome. There are three methods by which the laryngectomised patient may use speech for communication:—

(a) by use of an artificial larnyx;
(b) pseudo whisper;
(c) oesophageal voice.

The latter is the most practical, as the subject can be taught to carry on an intelligible conversation without unduly directing attention to his disability, apart from the use of shorter phrases in a lower pitch with a hoarse quality.

Artificial larynx. This method should only be used after every effort has been made to teach oesophageal speech, although it may be a useful ancillary once it has been learnt.

There are two types of instruments. One (Fig. 1), is a true artificial larynx consisting of a silver tubular reed box with a rubber connection at either end. The larger diameter tube plugs into the patient's tracheostomy tube, whilst the smaller outlet tube fits into the mouth. Exhaled air from the tracheostomy passes up to vibrate the reed producing a primary note (rather like a wind instrument). The column of air is then fed into the mouth where word formation is created by the lips and tongue. This type of voice has a flat, monotonous character.

The second type is an electric pharyngeal speech vibrator (Electrolarynx, Fig. 2). In this case the primary sound is produced electrically in the vibrator, the instrument being pressed firmly on the neck. The sound is transmitted to the air in the pharynx and is modified to form speech by movements of the tongue and lips. For better results these mouth movements have to be over-emphasized (as if speaking in pantomime).

Pseudo whisper. A patient who has not received instruction in oesophageal speech will very quickly acquire the habit of "whispering". Air is sucked into the buccal cavity using the facial and pharyngeal muscles and depressing the tongue. As this escapes words are formed by the lips and tongue. The sounds produced are very weak. It is most important not to allow patients to form the habit of "whispering" as it interferes with their ability to develop a good oesophageal voice.

Oesophageal voice. Preparation of the patient begins pre-operatively by a speech therapist who explains its mechanism in simple terms. Also he should be introduced to a previously laryngectomised patient who has a good oesophageal voice. The psychological effect of meeting another subject who has undergone the operation and has developed successful oesophageal speech is of prime importance. It raises his morale and encourages him to attain similar proficiency. Unfortunately, great variation exists in the ability of patients to develop the new method of speech.

Requirements for voice production. Basically the speech is produced by a column or stream of air passing over a vibrating membrane —thus a primary note is initiated. This becomes modulated and modified by the tongue, lips and teeth to form recognisable words.

With oesophageal speech, these requirements are satisfied by an air reservoir in the oesophagus, from which the stream of air originates. The cricopharyngeus sphincter acts as a vibrating membrane (corresponding to the vocal cords), and the tongue, lips and mouth remain as in a normal subject. The key of the mechanism lies in good control of the cricopharyngeus sphincter, learning to relax it during inspiration so that air can enter the oesophagus, also to increase the degree of its contraction so that there is minimal air wastage on phonation. The constriction produced by the muscle probably acts as a "reed" (Fig. 3, overleaf). Movement set up in the borders of the muscular fold by the column of air escaping through the sphincter, constitutes the mechanism of sound production. Therefore, it is extremely important during laryngectomy to carefully dissect the fibres of cricopharyngeus with the remainder of the inferior constrictor muscle, so that they can be sutured across to complete the anterior aspect of the pharynx.

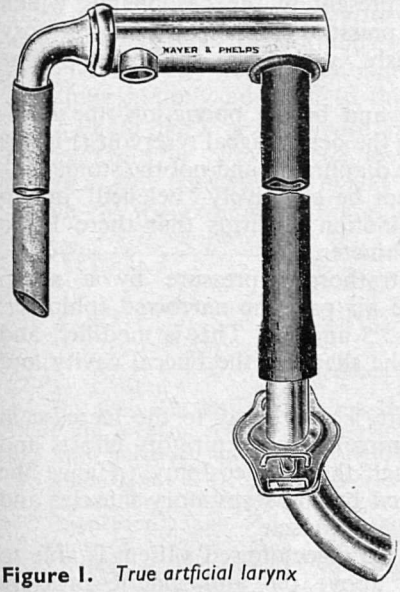


Figure 1. *True artficial larynx*

Figure 2. *"Electrolarynx*

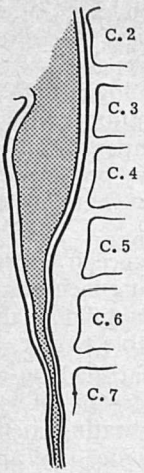
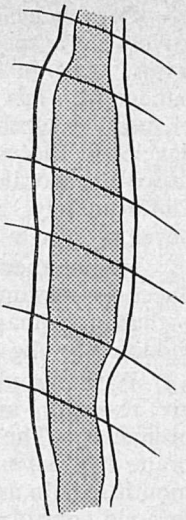


Figure 3.
Resting stage.
Oesophagus empty

Figure 4.
After air swallowing.
Lumen dilated



This primitive method of voice production may be compared to that of certain fish (Gurnards-Trigla) which are able to utter faint "groans" or "croaks". They have a muscular sphincter guarding the mouth of an air sac. This is of equal simplicity and is capable of throwing escaping air into vibration.

Mechanics of oesophageal voice. Prior to phonation, the subject "swallows" air with the nasopharynx closed off by the palate. The tongue goes upwards and backwards forcing the air into the pharynx. The patient relaxes the cricopharyngeal sphincter allowing the oesophagus to fill passively with air: this is partly encouraged by the subatmospheric pressure normally present in the oesophagus which is due to the negative intrathoracic pressure created by an inspiratory movement occurring simultaneously with air swallowing. The sphincter then closes.

Immediately after swallowing, and before phonation, the oesophagus dilates considerably, forming the oesophageal reservoir (Fig. 4), the lower limit of the reservoir is the diaphragm and not the stomach—for air sucked in the stomach cannot be effectively "belched" out to form speech. Radiographic examination confirms that there is no interchange of air at the cardiac sphincter.

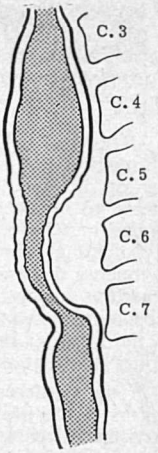
The patient now raises his intrathoracic pressure by a sharp expiratory effort which forces some air past the narrowed sphincter, vibrating it to produce sound (Figs. 5 and 6). This is modified and modulated by tongue movements, the shape of the buccal cavity and lips.

The rise in oesophageal pressure is due solely to the increase in intrathoracic pressure, as it is accompanied by expiratory efforts and escape of air from the lungs through the tracheostomy. Hence the muscular work involved is performed by the respiratory muscles and not by any contraction of oesophageal muscle.

It would appear strange that a laryngectomised patient is able to increase his intrathoracic pressure above the atmospheric pressure

Figure 5.
During phonation. Blurred edges due to vibration (opposite arrow)

Figure 6.
During phonation. Controlled release of air from oesophagus



despite the presence of tracheostomy. However, the necessary resistance is created by the narrow lumen of the lower bronchial tree and alveolar resistance.

As the subject becomes more adept, the act of swallowing air is more efficient and is done unconsciously. The pharynx dilates with air, the sphincter opens rapidly, allowing air to enter the oesophagus. It is then available for voice production.

Clinically, one finds that there are two stages in acquiring oesophageal speech. The first is "finding the voice" which takes about two months. The second stage is the ability to use the oesophageal air reservoir economically: it may take several years to acquire this skill. The gratitude and sense of achievement experienced by patients who have had a laryngectomy, learnt oesophageal speech and returned to useful employment is enormous. Most of them fully appreciate that they have been treated for cancer and will accept the disability, becoming happily adjusted to their new lives.

I would like to acknowledge and thank Down Bros. and Mayer and Phelps Ltd., for allowing me to publish illustrations of the artificial larynx. Also I extend my thanks to the Department of Medical Illustration for the excellent X-ray diagrams.

NOTICE

Cardiac Department

The following Journals are missing from the Cardiac Department Library. These are urgently required for binding and it is requested that anybody who may have borrowed these should return them at once.

Amer. Heart J. Oct., 1961: Vol. 62.
Circulation: May, 1964: Vol. 30.
Circulation: June, July, Sept., Oct., Nov., Dec., 1962: Vol 26.
Amer. J. Cardiol: Mar., 1964: Vol. 13.
Circulation Res.: Dec., 1962: Vol. 11.

C. G. BAKER.

THE DIABETIC AT HOME

A conference organised by the British Diabetic Association on the care of the diabetic outside the hospital.

The British Diabetic Association was founded for the purpose of improving the medical and social status of the diabetic in society. As a result of its efforts the lot of the diabetic has become an easier one. Many special facilities are offered to members of the Association which include information about diet, and general matters pertaining to diabetes; and for children it offers the opportunity of participating in summer camps. The Association recognises that diabetes is not so much a disease as a way of life and that the diabetic has special problems and situations to face in many aspects of his daily life. The doctor becomes accustomed to seeing the diabetic at infrequent intervals at the diabetic clinic of the hospital or in general practice, and knowledge of the intervals between is limited to what the patient can express often in a very brief interview.

This conference is an attempt to examine rather more closely day to day factors in the life of the diabetic which may escape attention or not appear to be particularly relevant during his visits to the doctor. Although the conference is basically aimed to inform people who have contacts with diabetics at home about the special problems and recent changes in the management of the condition, the programme includes information upon diet, problems of the diabetic child, care of the feet and welfare problems of the elderly diabetic. In the evening there will be a panel discussion, chaired by Professor W. J. H. Butterfield, in which a number of experts will attempt to answer a variety of questions from the audience. It is expected that the audience will consist of people interested in the welfare of the diabetic in its many aspects, including Health Visitors, Almoners, District Nurses, Dieticians, and so on. Nevertheless, it is hoped that the information which will be offered will not be entirely irrelevant to the needs of the student or practising doctor and such people are of course welcome to attend.

The conference is being held on Friday, the 16th October, 1964, at the Wellcome Foundation, Euston Road, London, N.W.1. It starts at 3 p.m. in the afternoon, and the afternoon session lasts until about 6 p.m. The panel discussion, referred to above, will start at 7.30 p.m.

H. KEEN.

REVIEW

PSYCHIATRY FOR STUDENTS,

by D. Stafford-Clark, Allen & Unwin, 1964. First Edition. Pp. 277. *Price* 35s.

For any student interested in Psychiatry, the range of books to read, let alone those recommended to him, is small. And yet after interest has been generated by his teachers, he will still need that one push further; to read something of and around his subject. He now has such a book. Psychiatry for Students is frighteningly full; it deals comprehensively and at times in beautiful English with the complete compass of psychiatry to-day. It includes cogently written chapters on child psychiatry and clinical psychology and includes a transcript of a recording during the induction of hypnosis. The classification of psychiatric disorders is neat and telling and illustrative case histories always make a point more forcefully when well chosen. Psychiatry and the Law is a subject often encountered even by students and rarely understood; the author examines it critically, even for those North of the Tweed.

" To talk about psychiatry is to hedge"; there is no hedging in this book, and throughout there is a nice approach to scientific research and data. Nothing is skimped and it still *makes* one appreciate how it feels to be a patient. To be able to sift sensibly through so much material, but yet retain a detached but sincere compassion for the patient is what is asked for and is given by this book. It is good and highly recommended.

TIMOTHY DAVIS

CORRESPONDENCE

The Chapel Crypt

SIR, I did not know that the Chapel Crypt was open until I was shown the way down there by Sir John Conybeare during my last visit to Guy's.

The following account tells how Dr. Astley Paston Cooper Ashhurst (1876-1932), a young surgeon from Philadelphia, found it less easy to get into 65 years ago.

Dr. Ashhurst was given his three renowned names at baptism because his father so admired the great surgeon. The son, so destined to become a surgeon, visited Guy's during his period in London around 1896.

The following extract from the manuscript collection of the Library of the College of Physicians of Philadelphia was made by Dr. W. B. McDaniel II.

" One of the most interesting things I did in London was to visit Sir Astley Cooper's grave at Guy's Hospital. I went there with no introduction and was told by the doorman to go to the college office and ask to be shown around. This I did and found them most painstakingly polite, but they explained that they could not show me over the Hospital, as they had control only of the didactic department. So they sent a clerk with me, who showed me the library and the museum, and took me back to the doorman and told him to inform me when the Surgical Registrar arrived, that he would take me through the wards and tell me of any operations. But the Surgical Registrar arrived late, and did not even stop to say " howdedoo " to me, though the doorkeeper stopped him and pointed me out; but when I saw him going towards the wards I followed among the crowd of students, as I cared more to see the wards than to meet him. I followed through two or three wards and heard him conduct real "ward classes" at the bedside of each new patient. He did it very well, too, and his remarks and differential diagnoses were quite interesting. But when I grew weary of this, I returned to my friends in the college department, as they had asked me to do if I wanted anything further; and asked them about Sir Astley Cooper's grave. They seemed never to have heard of his being buried at Guy's, but when I assured them that he was, and that even Baedekker (sic) mentioned it, they said they supposed it was in the chapel; but that only one man in Guy's knew about such matters, and that was old Mr. Williams in the counting house. So they showed me the way there, I found old Mr. Williams, explained who I was and what I wanted. He seemed much interested, but said Sir Astley was buried in the crypt and that that had been walled up years ago. When I expressed my regret he thought awhile and then said there was still a way of getting down there if he could only find it. So he put on a high white hat, as high as his beard was long, and took me across the courtyard to the Matron's house; while he went to interview her, I sat in her hallway wondering how the quest would end. He came out beaming and in a very mysterious manner told me to follow him; there was a way down, and he hoped all would be right. We then crossed the courtyard again to the housekeeper's house, which adjoined the chapel on the opposite side to the Matron's. We went in and he explained to the maid who answered the door, to tell the housekeeper that Mr. Williams of the counting house wished to go into the crypt. The maid and the housekeeper seemed very much astounded at the request, but the maid conducted us down the back stairs, through the kitchen into the cellar, and across a nearly empty coal bin. I helped Mr. Williams climb over the loose coal, and he got more and more and more excited as we went on, and finally we crawled out in the crypt of Guy's chapel. It was too dark to see anything, so the maid was dispatched for a candle, while Mr. W. and I groped around among the coffins. When the candle came I found that the first we had reached was Sir Astleys (sic), with the name almost illegible; but when we saw the Cooper it was not hard to trace out the Astley and the Paston before it. The plate is brass, and the lettering black—simply Sir Astley Paston Cooper, with the dates of his service at Guy's, and his birth and death, stating, I think, that by his last will and testament he had desired to be buried there. The other coffins were those of past Treasurers and Presidents, and I

wondered if Mr. Williams expected to be buried there himself. Guy himself, the bookseller, the founder of the Hospital is also down there. But Mr. Williams informed me that no one had been buried there for a great many years, and that so many people used to want to go down that they had had the entrance walled up years ago; that he had been in Guy's for forty-five years, but had not been down in the crypt for a great many years—a great many years, he added time and time again; and he seemed so much pleased to have cause to have gone down again, that I did not so much mind giving him so much trouble, nor at his tipping the candlebearer, which I really thought should have been my expense—but he would not hear of it. So we crawled out through a coalbin, across the kitchen, and emerged into upper air with only a little candle grease and a few cobwebs and dust on our clothes, and parted very good friends".

Yours, etc.,

H. E. HOLLING.

Cardiovascular Section, Hospital of the University of Pennsylvania,
3400 Spruce Street,
Philadelphia,
Penna,
U.S.A.

Biennial Dinner Combined Round

SIR, The special medical combined round, which was staged for the benefit of old Guy's men attending the Biennial Dinner on October 2nd, was much appreciated by those who were there. Professor Butterfield had chosen a most acceptable menu, mixing cases shown in the traditional Guy's clinical discipline with accounts of the investigative work of his department. Between courses there were news items from the Guy's medical scene presented *au Professeur*. I was unable to stay for the surgical round on the Saturday morning but no doubt this was equally appreciated.

A number of my friends at the dinner, when they heard how good the round had been, were sorry to have missed it, no doubt from overlooking the slip that came with the original notice about the dinner. This letter is to express the thanks of those who attended to Mr. Eckhoff and his colleagues for their most welcome innovation, and to say how they, and no doubt others, welcome the news that further such rounds will be held in 1966.

Yours, etc.,

A. BATTY SHAW.

41, Newmarket Road,
Norwich.

Development of Anaesthesia

SIR, The proceedings of the Section of Anaesthetics, Royal Society of Medicine, Vol. VII, No. 5, March, 1914, contains a discussion on intratracheal insufflation in which the late Professor Kelly, of Liverpool, the late Professor Pembrey, Dr (now Sir Geoffrey) Marshall, myself and others took part. I reported its use in 245 cases. I was privileged to write on this in the British Journal of Surgery, Vol. I, No. 1, July, 1913.

These facts show that intratracheal insufflation was used at Guy's many moons before Magill used it at the East Grinstead Hospital.

Yours, etc.,

Francis Shipway.

6, Wharfe Lane,
Henley-on-Thames.

Just for the record, Mr. Eckoff has pointed out that Sir Ivan Magill's work on endotracheal anaesthesia was mainly carried out at Sidcup, not at East Grinstead as stated in the article.—EDITORS.

SPORT

HOCKEY

After a number of encouraging practice sessions the season proper started on October 10th with both the first and second teams at home to South Saxons. The influx of freshmen has not been as great as was hoped for and the possibility of fielding five teams appears doubtful at present.

The first team won 2—0 in a game of only moderate interest. However, every member of the team showed a good, thoughtful attitude to the game, and the forwards were soon working well together, with freshman Cripps making a useful debut. Shortly before half-time Appleby scored a good breakaway goal, whereupon a member of the opposition retired for the remainder of the game.

Approach work continued to be promising in the second half, but a number of relatively simple scoring opportunities were badly wasted. These must be taken or cup hopes will not look so bright Late in the half, Appleby scored a second goal, as a result of some excellent wing play by Carruthers, who frequently looked menacing. A measure of Guy's superiority is that the goalkeeper, Hirst, for the first time in his career, did not touch the ball once; not very useful practice for a Derbyshire final trial the next day. If half the chances had been taken the score would have emphasised this superiority. It is hoped a new system of taking short corners will soon boost Guy's scoring ability.

The second team defeated South Saxons 6—2 in a display of accurate shooting that the first team would do well to emulate. S. Din started the season magnificently with 4 good goals; and the whole team showed enough skill to keep the first team players on their toes; a healthy position for any club!

First team: A. Hirst, D. Loader, K. Haynes (capt.), J. Crafts, C. Brooks, N. Twifitt, R. Carruthers, S. Cripps, M. Appleby, P. Bennett, M. Lewis.

Reports and Results

RUGBY FOOTBALL

GUY'S v. CAMBRIDGE UNIVERSITY

At Grange Road. 10th October, 1964

Result: lost 19—0

For the Hospital to be defeated by a full-strength University side 19—0 can never be regarded as a disgrace. Nevertheless, the points difference was ample justification for the superiority of the University backs, whose sheer speed and often mystifying jinks were able to split the Guy's defence, and often only some desperate tackles kept our line intact. However, at full-back, scrum-half, and up front we more than held our own, and it was most encouraging to see the Hospital often getting the under-shove in the tight and matching the fitness of the University forwards in the loose; Ashcroft in particular got through a mountain of work.

Grange Road looked its best when the Varsity kicked off before a good crowd. The turf was lush, and there was a warm, autumnal sun. The first 20 minutes were spent exclusively in the Cambridge half, but Guy's just lacked the vital penetration to score. A kick into our half eventually resulted in a scrum from which a Gibson-Rosser scissors and a return pass to the former saw him between the posts for a try which was converted. Following the kick-off a '25' rapidly ensued and from the drop-out Bevin caught the ball, and from fully forty yards attempted a drop at goal, which fell only tantalising inches below the bar. Cambridge possession enabled them to score two further tries before the interval, just prior to which Gibson—the Irish international fly-half—in a tackle on Morris, broke his right wrist and left the field.

The second half, in contrast to the first, was played in a downpour of rain, proportions which made handling most difficult. Although play switched from end to end the Cambridge backs were always pressing deep into Guy's territory and scored two further tries, one of which was converted. Both these tries followed deep penetrating runs which left the defence disorganised, and from the resulting loose ranks the University found themselves with two or even three men over on the left, making the final score 19—0.

This was an entertaining game out of which Guy's came most creditably and possibly with a few lessons learnt.

Team: A. R. Morris; R. Kerner, J. A. Edgar, C. J. Wright, A. J. Allen; B. Rowlands, D. R. Bevin; J. E. Davies, P. Ashcroft, R. Stansfield, A. J. Kingdon, P. K. Peace, A. Sharp, R. Brown, I. A. Baker.

IAN REEKIE

HOSPITAL INFORMATION

GUY'S—MAUDSLEY NEUROSURGICAL UNIT

Applications are invited for the post of **Registrar** (Middle Grade) for one year commencing 1st January, 1965. The Unit, which is housed in the Maudsley Hospital, serves both Guy's Hospital and the Bethlem Royal Hospital and the Maudsley Hospital. Applications should be made by **7th November, 1964,** to L. H. W. Paine, House Governor and Secretary, Maudsley Hospital, Denmark Hill, London, S.E.5.

GUY'S HOSPITAL, S.E.1.

Applications are invited for the post of **Senior Registrar in the Department of Anaesthetics,** with duties commencing 1st January, 1965. Application forms are obtainable from, and should be returned to the Superintendent, Guy's Hospital, London, S.E.1, not later than **23rd October, 1964.**

APPOINTMENTS VACANT

HOUSE APPOINTMENTS

December 1st, 1964

Applications are invited for the following House Appointments at Guy's Hospital, due to begin on December 1st, 1964, applications giving choice of post and choice of hospital, in order of preference, to be lodged with the Superintendent not later than **October 30th, 1964.**

Assistant House Surgeons
Pre-registration 4
The appointment will be for six months, the first three to be spent as A.H.S. During the second three months of the appointment candidates will move either to the post of Casualty Officer (Surgical) or will remain as A.H.S.
These vacancies will normally be open to pre-registration candidates applying for their first appointment and not to candidates seeking their second six months appointment.

Assistant House Physicians
Pre-registration 5
The appointment will be for six months, the first three to be spent as A.H.P. During the second three months of the appointment candidates will move either to the post of Casualty Officer (Medical) or will remain as A.H.P.
These vacancies will normally be open to pre-registration candidates applying for their first appointment and not to candidates seeking their second six months appointment.

Casualty Officers
Pre-registration 6

House Surgeons
1 Pre-registration
1 Pre- or Post-registration 2

House Physicians
2 Pre-registration
1 Pre- or Post-registration 3

Resident Obstetrician
Post-registration 1
(To commence 1.1.65.).

Throat and Ear House Surgeon
Pre- or Post-registration 1

Orthopaedic House Surgeons
Pre-registration 2

Dermatological House Physician
Post-registration 1

Genito-Urinary House Surgeon
Pre-registration (2nd six months) or
Post-registration 1

House Surgeon to the Thoracic Unit
Pre- or Post-registration 1

Children's House Physician
Pre-registration, 2nd six months candidate only 1

House Physician in Clinical Pathology
S.H.O. 1

R.M.O. In Nuffield House
S.H.O. 1
(To commence 1.1.65.).

Resident Anaesthetists
1 S.H.O.
1 Post-registration 2
The Medical Committee will also consider applications for posts at outer hospitals as follows:—

JOYCE GREEN HOSPITAL
House Physician in General Medicine, with Dermatology
Pre-registration 1

LEWISHAM HOSPITAL
House Surgeon
Pre-registration 1
House Physician to Dr. Roberts
Pre-registration 1

ORPINGTON HOSPITAL
House Surgeons
Pre-registration 2

PEMBURY HOSPITAL
House Surgeons
Pre-registration 2

QUEEN MARY'S HOSPITAL, SIDCUP
House Surgeon
Pre-registration 1
House Physician
Pre-registration 1
(To commence 1.1.65.)

ST. JOHN'S HOSPITAL, LEWISHAM
House Surgeon (General Duties with Gynaecology) to Mr. Le Brun and Mr. Gunn
Pre-registration 1

ST. OLAVE'S HOSPITAL
House Physicians
Pre-registration 2
S.H.O. in General Surgery 1
S.H.O. in Orthopaedic and General Surgery 1
(To commence 1.1.65.)

NOTICE FOR PRE-REGISTRATION CANDIDATES

Pre-registration candidates are reminded that the number of posts at Guy's is small compared with the number of students who are likely to qualify. Students applying at Guy's, therefore, are advised to consider applying for pre-registration posts elsewhere at the same time, in order to avoid delay in obtaining a post. A number of recognised posts is available in the South-East region. Details of posts in this region and elsewhere in the country are available in the Medical School Office.

Pre-registration candidates who have completed six months in Medical or Surgical posts are reminded that they must now apply for Surgical and Medical posts respectively. A candidate who has completed his first six months in a specialty (Surgical or Medical) may not do another six months in a specialty, but must seek a post in general medicine or general surgery as the case may be, according to G.M.C. regulations.

ENTRY OF STUDENTS

October, 1964

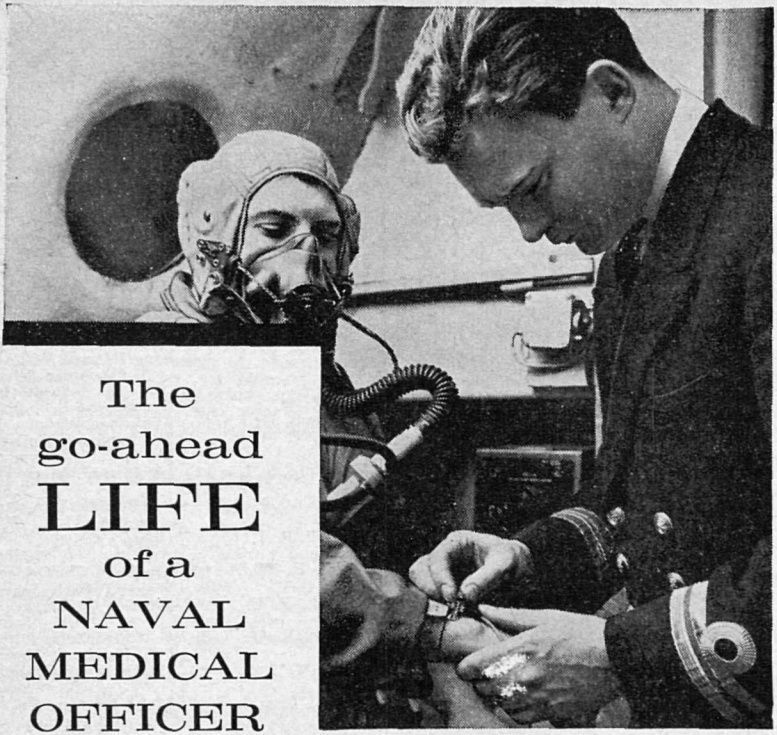
MEDICAL SCHOOL

1st Year Students

Name	School
Anderson, D. N.	Lancing College
Behrman, R. G. A.	William Ellis School, N.W.5.
Burlinson, R. A.	Rutlish School, Merton Park
Craig, A.	Dover College
Lomax, R. A.	Rugby
Manna, R.	Royal College, Port Louis, Mauritius
Morsman, J. M.	City of London School
Neustatter, P. L.	Dartington Hall School
Ross, J. R. M.	King James' Grammar School, Huddersfield, and Queen Elizabeth Grammar School, Wakefield
Sommi, K. J.	Beaumont College
Stoll, S. A.	University College School, N.W.3.
Tan, M. K.	Lindisfarne College, Wrexham
Walters, Clare C.	Bridgend Girls' County Grammar School
Watford, T. H.	Highgate School

2nd Year Students

Name	School
Allen, J. N. B.	Northgate Grammar School, Ipswich
Baker, D. A.	Dorking County Grammar School, Dorking
Barter, D. A. C.	St. Joseph's College, S.E.19.
Bashford, A. C.	Whitgift School
Blanchard, H. N.	Wellington College, Crowthorne
Briggs, D. S.	King Edward VI School, Lichfield
Brown, D. F.	Southfield School, Oxford
Brydone, Julia A.	St. Stephen's College, Broadstairs
Bundred, P. E.	Prince of Wales School, Nairobi
Carter, F. M.	Downside School
Carter, M. R.	Mungret College, Limerick, Eire, and St. James, Burnt Oak.
Carter, P. M.	King Henry VIII School, Coventry
Cavanagh, N. P. C.	Ampleforth College
Chiswell, R. J.	Cranleigh School
Choat, D. J. M.	Epsom College
Clark, M. N.	Hurstpierpoint College
Cockburn, J. M.	Nottingham High School
Cocks, Christine	St. Mary's Hall, Brighton
Coe, N. P. W.	Abingdon School
Cowan, R. E.	Mill Hill School, N.W.7.
Cutting, J. C.	Tiffin School, Kingston-Upon-Thames
Dewar, E. P.	Tiffin School, Kingston-Upon-Thames
Dowling, Susan F. O.	The Royal Naval School, Haslemere.
Ede, M. C.	The Royal Grammar School, Guildford
Evans, R. P.	Atlantic College, Llantwit Major, Glamorgan
Falkner, M. H.	Wintringham Grammar School, Grimsby
Gaine, M. G.	Dean Close School, Grimsby
Glen, Yvonne, F. A.	Notre Dame High School, S.E.1
Gravett, P. J.	Dulwich College
Griffin, N. K.	City of London School
Grimble, I. A.	Shrewsbury School
Hall, Susan M.	School of St. Clare, Penzance
Harlock, Judith R.	The Mount School, York
Hayhow, B.	Sir George Monoux Grammar School, E.17
Healey, D. G.	Epsom College
Hill, J. F.	Sedbergh School, Yorkshire
Hopkins, J.	Eltham College, S.E.9.
Jessett, D. J.	Abingdon School
Jones, I. V.	Derby School
Kelynack, J. B.	Hertford Grammar School
Lee, R. E. J.	King Edward VI Grammar School, Stourbridge
Lee, R. N.	Bromsgrove School
Lipscomb, D. J.	Tonbridge School
Lynch, T. M. P.	St. Boniface's College, Plymouth
McAuliffe, S. L.	Finchley Grammar School
McCarthy, T. P.	St. Benedict's Abbey, W.5.
Machell, R. J.	Queen's College, Taunton
Moult, E. M.	The Leys, Cambridge
Nash, I. T.	Westcliff High School
Nicholls, P. E.	Bromley Grammar School
Nwator, F. O.	C.M.S. School, Port Harcourt, Nigeria, and Okrika Grammar School
Parkes, Tessa L.	Malet Lambert Co-Educational High School, Hull
Pereira, N. M.	St. Joseph's Academy Grammar School, S.E.3.
Plummer, R. B.	Haileybury and Imperial Service College
Pratt, B.	Kelly College, Tavistock
Prudo-Chlesbosz, R. R.	Gateway School, Leicester
Quinnell, R. C.	Felsted School
Rawlinson, J.	Cheadle Hulme School
Rench, Penelope A.	Talbot Heath, Bournemouth
Richards, D. F. A.	Epsom College
Ross, Carole E.	Sutton High School
Scholefield, R .D.	Epsom College
Scholfield, J. G.	Bradford Grammar
Schroder, M.	Canford School, Wimbourne
Seal, A. M.	Harrow School
Settatree, R. S.	Sevenoaks School
Skelton, Anne M.	Blackheath High School
Steinberg, D.	St. Paul's School
Stewart, K. R.	Felsted School
Stygall, G. W. H.	Tiffin School, Kingston-Upon-Thames
Turton, C. W. G.	King's College, Wimbledon
Whorwell, P. J.	Dover College
Wilkinson, I. E. C.	Moseley Hall Grammar School, Cheadle
Woodland, J.	Whitgift School, Croydon
Wright, R. G.	Prince Edward School, Salisbury, Southern Rhodesia
Zorab, R. A.	Cheltenham College



The go-ahead LIFE of a NAVAL MEDICAL OFFICER

A pilot being prepared for a simulated high altitude test.

This is a life of unbounded opportunity. Anywhere in the world, you practise medicine with complete medical freedom. Among 100,000 Naval men and women you gain extensive medical experience of the most varied nature. Civilian patients, too, of both sexes and all ages, are treated in Naval hospitals. You have excellent opportunities for specialising in the normal clinical subjects, and in the less usual, such as Nuclear, Underwater, and Aviation medicine. You are actively encouraged and financially assisted to acquire higher degrees. You can gain consultant status.

As a Medical Officer, your pay, allowances, and gratuity—or permanent commission pension—are very good: for example, your initial pay is considerably higher than that of a civilian hospital registrar.

You can enter in one of three ways: as a registered Medical Practitioner — your civilian experience back-dating seniority— or as a qualified doctor doing your pre-registration year, or as a student with a 2nd M.B. For qualified women doctors, there is a special short service commission. For fullest details of your Royal Navy life as a Medical Officer, write, mentioning your own qualifications and age to:

The Medical Director-General of the Navy, Medical Department GO66/D, Empress State Building, London, S.W.6.

Combined Course Students

Name	School
Crossman, I. G.	Latymer Upper School, W.6, and Guy's Hospital Dental School
Dufton, J. F.	Finchley Catholic Grammar School, and Guy's Hospital Dental School
Edwards, G. M.	Shene Grammar School, S.W.14, and Guy's Hospital Dental School
Hutchinson, M. C. E.	Bedford School, and Guy's Hospital Dental School
Margerison, J. C. L.	Marlborough College, and Guy's Hospital Dental School

Clinical Students

Name	School
Brown, K. G. E.	Haverfordwest Grammar School, and King's College, Cambridge
Budhall, A.	University of the West Indies
Butchey, J. R. K.	University of the West Indies
Collins, L. F. H.	Repton and Trinity College, Cambridge
Davis, E. P.	Radley College and Emmanuel College, Cambridge
Ellis, P. D. M.	Rugby and St. John's College, Cambridge
Farebrother, M. J. B.	Reigate Grammar School, and Queen's College, Cambridge
Garmany, H.	Felsted School, and Gonville and Caius College, Cambridge
Halliday, J. J.	Marlborough, and King's College, Cambridge
Harrison B. D. W.	Shrewsbury and St. John's College, Cambridge
Hughes, R. A. C.	Marlborough and Clare College, Cambridge
Loach, A. B	King Edward's School, Brimingham and Gonville and Caius College, Cambridge
Moore, B. W. R.	Saltley Grammar School, Birmingham, and Peterhouse, Cambridge
Newman, J. H.	Tonbridge School and Clare College, Cambridge
Peters, D. J.	Hurstpierpoint College, and St. Catharine's College, Cambridge
Pickering, J. G.	West Hartlepool Grammar School and St. Catharine's College, Cambridge
Shapland, D. E. P.	Dulwich College and Gonville and Caius College, Cambridge
Stanley-Little, S. R. C. J.	Epsom College and Worcester College, Oxford
Wallace, P. D.	Shrewsbury and St. John's College, Cambridge
White, N. M.	Canford and Christ's College, Cambridge
Wistreich, Mrs. June M.	University of Sheffield

October, 1964

DENTAL SCHOOL

1st Year B.D.S. Students

Name	School
Adesina, O. A.	Government College, Ibadan, Nigeria
Apthorp, Marion J.	St. Margaret's School, Bushey
Barough, R. D.	King's School, Cheshire
Bevis, Philippa M.	Sydenham High School
Breen, P. A.	John Fisher School, Purley
Booth, G. P.	William Hulme's Grammar School, Manchester
Cunliffe, J. S.	Rutlish Grammar School
Dovey, Carina	Convent of the Nativity of Our Lord, Maidenhead
George, A. G.	Milford Haven Grammar School
Hodge, Hilary	The Abbey School, Reading
Hunter, Sally E.	Lillesden School, Hawkhurst
Jackson, D.	Sherwood Hall
Jones, R. W.	Nottingham High School
Kendrick, R. W.	Sir Roger Manwood's Grammar School
Klich, L. Z.	St. Mary's College, Southampton
Mackenzie, I. J.	*Mill Hill*
Malia, K. W.	Wimbledon College
Neville, C. G.	John Bright Grammar School, Llandudno
Nockles, M. J.	Barton Peveril Grammar School
Osborne, J. A.	Shiplake Court, Henley on Thames
Pitt, C. Primrose	Cheltenham Ladies' College
Sharp, Anita L.	Convent of the Nativity, Sittingbourne
Steer, D. H. H.	Wolmer's Boys' School, Kingston, Jamaica
Stephens, W. H.	Cranleigh
Thomas, G. M.	The Grammar School, Swansea
Tippett, Elizabeth A. C.	Sydenham High School
Wiggins, Deborah M.	Walthamstow Hall, Sevenoaks
Wright, P. R.	Calder High School

2nd Year B.D.S. Students

Name	School
Alder, Esme H.	Bournemouth School for Girls
Averill, A. S.	Pocklington School
Banner, A. J.	King Edwards Grammar School, Birmingham
Barnett, Kathryn L.	Solihull High School for Girls
Berger, P. R.	Carmel College, Wallingford
Blockley, C. S.	St. John's, Leatherhead
Brown, G. F.	Bristol Grammar School
Brown, P. J. N.	King Edward's School, Bath
Calder, C. M.	St. Bartholomew's Grammar School, Newbury
Challacombe, S. J.	Culford School
Cornell, A. K.	Northampton Grammar School
Cox, C. J.	King's School, Canterbury

What do you know about the Q.A.'s?

Q What do the letters Q.A.R.A.N.C. (usually shortened to Q.A.) stand for?

A Queen Alexandra's Royal Army Nursing Corps. Founded in 1902 by Queen Alexandra as the Q.A.I.M.N.S. (Queen Alexandra's Imperial Military Nursing Service), the Q.A.'s are immediately recognizable by their famous uniform of grey dress and scarlet cape.

Q What do the Q.A.'s do in peacetime?

A They nurse the Army and its dependents—not only serving soldiers, their wives and families but many civilians attached to the Army at home and abroad.

Q Are there opportunities of serving abroad and if so where?

A Most Q.A.'s spend some time at an overseas station. There are Army Hospitals staffed by Q.A.'s for instance in Hong Kong, Singapore, Cyprus, North Africa and Germany, to mention just a few.

Q Does the Q.A.R.A.N.C. want trained nurses or beginners?

A There are vacancies for both, but if you are an S.R.N. when you join you will be commissioned immediately.

Q Are there opportunities of increasing professional knowledge?

A Q.A. standards are high, and there's probably a greater variety than anywhere else—you can do Tropical Medicine, Midwifery and Pediatrics as well as all the usual branches of nursing.

Q To sum up—what is the main appeal of the Q.A.'s to a young trained nurse?

A In the Q.A.'s you can see the world and get further nursing experience at the same time. Good pay and allowances, smart uniforms, generous holidays with special travel facilities, a special cumulative gratuity paid to you on leaving—the Q.A.'s have all this to offer.

If you're an S.R.N. and would like to know more about nursing as an officer in the Q.A.'s, write to Matron-in-chief QARANC, Department AMD 4, GO/Q34G) Lansdowne House, Berkeley Square, London, W.1.

try for a commission in the QA's

QUEEN ALEXANDRA'S ROYAL ARMY NURSING CORPS

Cree, L.	St. Paul's
Cripps, S. N.	Caterham School
Davey, R. T.	Sir George Monoux Grammar School, E.17.
Debenham, C. R.	Haileybury
Dobson, J. L.	St. Joseph's College, Stoke on Trent
Eager, D. J.	Wycliffe College, Gloucestershire
Edwards, J. C.	Thomas Linacre School, Wigan
Emanuel, T. O.	Llanelly Boys' Grammar School
Francis, M. T. H.	Queen Mary's Grammar School, Walsall
Godfrey, H. D.	Stowe
Groves, Rosemary	Romford County High School
Halliday, J. W. C.	Chatham House Grammar School
Hopkinson, N. R.	Nottingham High School
Howell, C. J. T.	Shebbear College, North Devon
Howells, K.	Rhondda County Grammar School
Jacobs, D. P.	Hackney Downs School
Kennedy, D. B.	Uppingham
Keys-Toyer, A. C.	Luton Grammar School
Kirk, T.	Lutterworth Grammar School
Lambden, P. W.	Boreham Wood Grammar School
Ludford, J. M B.	Bournemouth School
Lewis, D. G.	Queen Elizabeth Grammar School, Carmarthen
MsLean, Jean A. D.	Walpole Grammar School, W.13.
Morris, G.	Stanley Technical School
O'Grady, M. J.	St. Bede's College, Manchester
Phillips, R. M. H.	The Grammar School, Neath, Glamorgan
Price, M. B.	George Dixon Grammar School, Birmingham
Purdy, D. E.	The Coopers' Company's School, E.3.
Reay, W. J.	Hutton Grammar School, Preston
Rosten, W. M.	Canford
Scholes, Jennifer M.	Bedford High School
Scott, C. F.	St. Benedicts School, W.5.
Scutt, Eileen M.	Selhurst Grammar School
Souness, J. A. R.	Devonport High School
Standring, G. L.	Westminster
Swain, J. G. G.	Christ's College, Finchley
Taplin, M. G.	Churcher's College, Petersfield
Trotter, D. I.	Newcastle Royal Grammar School
Van Der Pant, F. J. D.	Sir William Borlase's School, Marlow
Watson, M. J.	Wintringham Grammar School, Grimsby
Weaver, Gillian B.	Ludlow High School
Williams, P. A. L.	St. Julian's High School, Newport

Clinical Student

Name	School
Ferrante, H. M.	Royal University of Malta Dental School

NURSING NEWS

Entered

Sister G. Greensmith to Samaritan.
Sister M. O'Shaughnessey to Victoria.
Sister H. Thoms to Cornelius.
Staff Nurse P. Beegan to William Gull.
Staff Nurse C. McDermott to Nuffield C.
Staff Nurse F. Spencer to Cornelius.
Staff Nurse M. Onyuike to York Clinic.
Staff Nurse E. Perez (née Noon) to Surgical X-ray Theatre.
Staff Midwife A. Taylor to Victoria.
Staff Nurse F. Sayers to School of Nursing.
Staff Nurse P. Tapper to Nuffield Theatres.
Staff Nurse L. Lisk to York Clinic.

Left

Sister J. Andrews from Matron's Office.
Sister M. Sellin from Victoria.
Staff Nurse Twelftree from Theatres.
Staff Nurse B. Faulkner from Ruth.
Staff Nurse K. Hunt from York Clinic.
Staff Nurse U. Shannon from Casualty.
Staff Nurse L. Smith from Christopher.
Staff Nurse M. Standley from Evelyn.
Staff Nurse B. Stewart from Casualty.
Staff Nurse W. Weston from York Clinic.

PERSONAL

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BIRTHS

BRADBROOKE.—On August 6th, 1964, to Wila and David Bradbrooke, a daughter, Serena Mary.

GAIN.—To Martin and Frances (née Adams) a son, Timothy Charles Thorold, a brother for Fiona.

OAKLEY.—On August 30th, 1964, at 12, Orlick Road, Charlk, Gravesend, to Pamela (née Weiss) and Dr. John Oakley, a son, Julian Richard, a brother for Karen.

PAPERS BY GUY'S MEN

Benson, P. F. and others. Vaccination of infants with living attenuated measles vaccine (Edmonston strain) with and without gamma-globulin. *Brit. med. J.*, 1964, **2**, 851.

Brook, C. P. B. Psychiatric units in general hospitals. *Lancet*, 1964, **2**, 684.

Conybeare, E. T. Articles on Public Health, Epidemiology and Preventitive Medicine in *Medical Annual*, 1964.

Broome, J. D. and another. The anticoagulant and antilymphoma properties of arsenic azoproteins. Parts 1 and 2. *J. exp. Med.*, 1964, **120**, **449**, 467.

Fry, John. Symposium on antenatal care. *Med. Wrld.*, 1964, **101**, 229.

Fry, John. Peptic ulcer: A profile. *Brit. med. J.*, 1964, **2**, 809.

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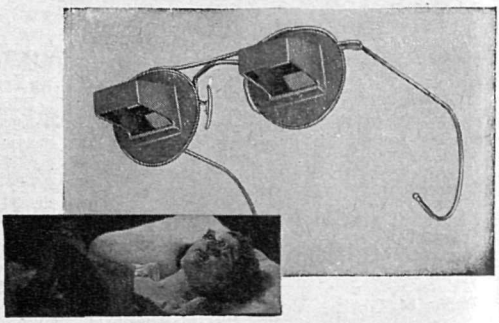

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GUY'S HOSPITAL GAZETTE

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Editors *T. C. Davis*
B. H. Hicks

Sports Correspondent *N. J. Knott*

Guy's Hospital, London

PASSIM

Psychodifferences

Epidemiological studies have been instrumental in establishing a better understanding of the causes of communicable diseases such as cholera, plague, malaria and typhoid and have since led to a large measure of control of these diseases through improved sanitation and other prophylactic measures. Similar studies just after the last war indicated a greater incidence of "breakdown" among rear gunners and wireless operators in the R.A.F., and led to the hypothesis that it is possible to identify factors in the day-to-day environment of the population at risk which will contribute to the occurrence of mental breakdown. This was a relatively new idea and has since been backed up by rigorous research. It seems that, in this country at least, the proportion of students who have mental breakdowns is higher amongst those students who have left their own cultural background in order to study. There are significantly higher rates of psychiatric disorder among Afro-Asian students but surprisingly, the minor disorders did not appear to have an adverse effect on their performance in examinations.

In other fields it has been found that West Africans have rates of neurosis and psychosomatic disorder nearly as high as those found in Canada and that, more interestingly, these rates are higher in communities which have undergone rapid social change.

Necessarily, the replies to enquiry from practitioners about the rates of psychiatric disorder in their practices must reflect the bias and personality of the practitioner. Some practitioners make a diagnosis of psychiatric illness in less than 10 per cent of their patients, whereas others, more psychoanalytically minded, are known to give estimates of anything from 40 to 70 per cent. Thus clearly stated definitions of psychiatric disorder are necessary to produce worthwhile epidemiological evidence.

Perhaps this might be looked into by the new General Practice Research Unit which is being established in the Department of Medicine at Guy's. A Nuffield Foundation grant of £36,000 has been made and Dr. Robert Smith has been seconded from the Wellcome Foundation to direct the unit. It is to be primarily concerned with forming a plan and developing a scheme of comprehensive medical care for the new residential area at Woolwich and will be linked with teaching and research at Guy's. There are tremendous problems involved, not least the one mentioned previously, and we wish the new unit every encouragement and success.

One of the oldest societies in London has elected a new President. The new President of the Medical Society of London is Mr. G. Blackburn and we congratulate him on this honour. We would also like to offer our best wishes to Miss D. Hollinghurst, who has been appointed Assistant Nursing Officer to the Wessex Regional Hospital Board.

75th Dental Anniversary Dinner

When a dinner opens with a grace that ends: "Thank God for good food and good appetite, good teeth and good dentists. . ." then the atmosphere is well on the way to being a "birthday party for Guy's and their Dolls", as Sir John Wolfenden put it. Professor Pedersen, of Copenhagen, followed the cutting of that huge (and delicious) cake with some sparkling leg-pulls and much sincere compliment. The polar bear he presented to the Dental School was ceramic, alas, as were the babies, Mr. Warner's with toothache, Sir Rowan's with headache. Sir John Wolfenden's views on other people's attitudes to the University Grants Committee were colourful and accurate; it is seen variously as a "buffer"—between sides, a "shock absorber"—for shocks on both sides, a "backside"—for kicking by just everyone, and finally a "septic tank" in which *money* is poured and *filthy lucre* emerges! He promised the politic nothing, but showed himself familiar with the future possibilities of "celestial conservation" on the 29th floor. Sir Rowan Boland, replying to the toast as Dean of the Medical and Dental Schools, recounted the 75 years of fine achievement on which the Dental School prides itself. He noted, with the gentlest look of reproach at Sir John, how in 1888 the first plans were drawn up, within six months the school founded, and within one year the first student at work. Sir John smiled into his brandy with the inscrutable smile of the East Whitehall.

The Gazette joins with him in wishing the Dental Hospital and School many more than seventy-five years of further progress, prosperity and achievement.

Full report and photograph on page 514.

GUY'S DIARY

NOVEMBER

EXHIBITION.

Amputations.

2nd	M.	1.00	Dr. BAKER. Clinical Lecture. *Angina pectoris.*
3rd	T.	1.00	Mr. BLACKBURN. Clinical Lecture. *The Acute Abdomen.*
5th	Th.	4.30	Professor A. G. BRODIE (Univ. of Illinois). Dental Clinical Lecture. Dental Theatre. *The Application of Research to Orthodontic Treatment.*
9th	M.	1.00	Mr. KINDER. Clinical Lecture. *Obstructions of the Ureter.*
12th	Th.	1.00	Mr. GLOVER. Clinical Lecture. *Varicose Veins.*
13th	F.	1.00	Dr. TROUNCE. Clinical Lecture. *Nephrotic Syndrome.*
14th	S.	10.00	Departmental Round. Clinical Theatre. Conducted by Mr. W. A. CRABBE.
16th	M.	1.00	Dr. DEUCHAR. Clinical Lecture. *Resuscitation.*
19th	Th.	1.00	Mr. LAWRIE. Clinical Lecture.
19th	Th.	5.00	Neurosurgical Round. Clinical Theatre. Conducted by Mr. SCHURR.
20th	F.	1.00	Dr. SCOTT. Clinical Lecture.
24th	T.	1.00	Dr. EVANS. Clinical Lecture.
27th	F.	1.00	Mr. BRAIN. Clinical Lecture.
28th	S.	10.00	Clinico-Pathological Meeting. Clinical Theatre.

NEW FACES FOR OLD

J. F. JEFFS
F.R.C.S.

The problem of restoration of lost parts has exercised man ever since he became aware of his personal appearance, and Etruscan tombs have produced artificial noses, ears and eyes.

The earliest records show methods of replacing lost parts (and facial disfigurement was obviously most important), by the use of prosthetics made of beaten and painted metals. (Ambrose Paré, 1517.) This type of prosthesis has been (and is still in some places) the method of choice for external wear and there has been considerable advance in the design, and colour of the prostheses and of the types of glue used to attach them. Later on (1901) vulcanised rubber was used as was papier mâché.

The advent of the acrylic resins (1930) and the ability to colour and process them took the design of prostheses a great step forward. The older metal prostheses often looked " dead ". The paint faded and apart from the weight (later overcome by light alloys), the main drawback was the inflexibility of the material in use and the complete absence of texture matching. The acrylic plastics initially had this same disadvantage of hardness but more recently soft acrylics are available which can be coloured to match the normal skin, have almost normal surface texture, and depth of colouring so that the material approaches the translucent opacity of the skin, are light to wear, do not fade in colour and if necessary can be "made up" like normal skin. At present the prosthesis of choice is either of soft acrylic or of silicone rubber. This latter material is absolutely inert and removes the only drawback of soft acrylic (that some skins are sensitive to it). The original difficulty of colouring silicone rubber has now been largely overcome. (*See opposite*).

This then was the position until the First World War. Loss of facial contour was made good by the use of external prostheses which although often disguised by side whiskers and beards and spectacles, were at best a poor substitute for normal skin.

With the First World War came the large number of "facially maimed" whose disfigurments after healing were not acceptable to themselves or to their fellows and particularly to one man—then Captain Gillies, R.A.M.C. The problem of restoration of contour for functional and cosmetic reasons engaged him and others after him to provide replacement of the lost tissue by the patient's own tissue. The "breakthrough" came when, in 1917, Filatov in Russia and Gillies in England both described the method of tissue transfer by the tubed

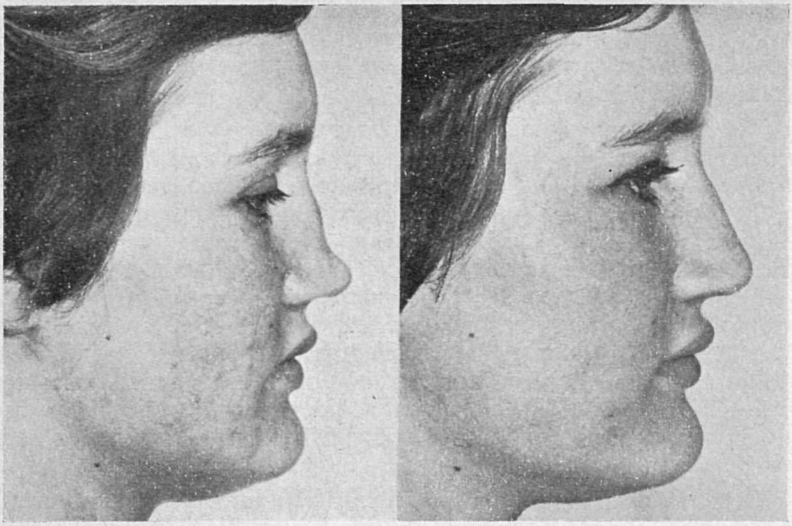
pedicle flap. This is now standard practice and has been modified in various ways to suit various situations. The advent of antibiotics and the advances of anaesthetic methods now allow almost unlimited replacement of facial tissue.

The problem (of facial contour restoration) was not entirely solved, however. It was now possible to replace distorted, scarred skin by normal skin and fat but these tissues did not restore contour in the absence of the supporting hard tissues—bone and cartilage. The next step was the use of cartilage and bone as free autografts. These had the advantage of ready acceptance by the host tissues but were often distorted by absorption or partial absorption. Cartilage grafts did distort due to continued growth in that part of the graft nearest the perichondrium and sometimes the patients resented the further scars and pains inflicted on the donor sites at costal cartilage or at iliac crest. Further the grafts did not grow with a growing patient and in addition the bone and cartilage grafts in children were very readily absorbed completely.

These defects in the bone and cartilage autografts led naturally to the search for other implants. Almost everything has been used—initially boiled ox cartilage was popular as was whalebone and ivory. The issue acceptability of these implants was not by any means certain and, coupled with the inability to counter infections by any means other than drainage and lavage led to many of the implants being rejected and many more being removed for, or disappearing in, a

Patient after orbital clearance for rodent ulcer

Same patient wearing soft acrylic prosthesis (made by Mr. B. Conroy, Chief Surgical Technician)



Collapse of bridge line after loss of septum

Same patient following implant of polythene nasal bridge

gross tissue reaction. Thus *foreign animal implants* gradually lost their fashion although interest has recently been aroused again by the availability of deproteinised calf cancellus bone blocks. These can readily be sterilised and shaped but appear uncertain in their long-term retention of shape due to absorption. They would appear to be of more use in the bridging of ununited fractures than in contour restoration.

The search for a suitable implant then turned to non-animal sources and metal alloys of various degrees of sophistication were used. Some of these (i.e. vanadum) were and are readily accepted by the issues but the difficulties of preparing the necessary shapes and processing and fixing them rule out their "everyday" use. Again the advent of acrylic plastics appeared to have solved the problem but the amount of free monomer in the earlier acrylics caused too much tissue reaction and the use of the "long cured" moulded acrylic implants now available imposes the same difficulties of planning and processing as did metal.

When, after the Second War, the polyester plastics swamped our lives the implanter had virtually an infinite combination of plastics to assay. The manipulation of the long chain polyesers can produce products of any desired hardness, flexibility, thermal stability or any other physical property desired. Unfortunately, any plastic used has to be sterilised—usually by heat and is in use incubated at body temperature and bathed in tissue fluids. It is asking much of an industrial chemist to forecast what his latest product will be like under these conditions in five years' time. In order to produce the desired

plastic the chemist has to be given certain criteria for the product. These may be (for the plastic surgeons' requirements):—

1. Absolutely inert chemically and unaffected by tissue fluids.
2. Acceptable to tissues.
3. Mechanically strong enough.
4. Capable of sterilisation by any method.
5. Non carcinogenic.

Of the many plastics produced, the following have been found useful:—

1. Polythene—this is a polymer of the gas ethylene.

It is of reasonable mechanical strength and can be hand carved "at the table" by a knife. It can be boiled but not autoclaved. It is acceptable to the tissues. This material is useful for building bony contours as in saddle noses or micrognathia but is too hard for purely soft tissue filling. (*See opposite*).

2. P.T.F.E.—this material is very hard and stable chemically and physically but is impossible to work without previous moulding.

3. Silicone Rubber—this is an ester of silicone and is reputedly the most inert of all materials. It is produced in various gradations of hardness and resilience and one or other is suitable for almost all cases. It is readily sterilised by autoclaving and is not affected by tissue fluids. In addition it can be obtained as a liquid which can be injected into the tissues. A sponge is also available. It will probably replace the other materials.

There is then a wide range of foreign implant material to be used for contour restoration. This does not solve the question of whether it should be used and there have been a number of articles which have reported the development of neoplasms in association with these implants in animals. This would appear to be due to their physical shape and size rather than their chemical composition (assuming that they are inert and cause no local reaction initially). Thus sheets of material yield a higher incidence of neoplasms than do sponges or perforated discs.

These finding have led many surgeons to abandon the use of implants, arguing that it is unjustified to risk the occurrence of a neoplasm in what is only a cosmetic defect. This is a point which must be left to each individual to answer. Perhaps the best compromise is to use an implant initially and to later replace it by a bone graft if the situation warrants this.

NOTICE

The Church of England Society

The Society meets at 1.0 p.m. on Wednesdays. Holy Communion and a discussion are held on alternate Wednesdays. Holy Communion is in the hospital chapel; discussions are in the chaplain's office.

A. J. M. SAINT, *Chaplain.*
D. H. HAINES, *Secretary.*

REVISED

Student Appointments in the Clinical Period

A reduction in the children's appointment from three months to two months was effected when the new clinical curriculum was introduced in April, 1962. The main objects of the new curriculum were to reduce the time spent on compulsory appointments so that more use could be made of the teaching facilities of the special departments in which students hold elective appointments, and to ensure that all students have an introductory course before becoming ward clerks or dressers. A saving of five months in compulsory appointments was effected by replacing the old preliminary clinical period (three months) and surgical ward clerk (three months) by the new first clinical appointment (four months) and by replacing the second obstetric dresser appointment (three months) by sector (one month), which was combined with a shortened two-month appointment in paediatrics.

This shortened children's appointment has proved to be unsatisfactory and it has been decided to revert to a three months' appointment from January, 1964. The month's sector will be combined instead with the first of the elective or "Special" appointments, which will be taken immediately after Obstetric Dresser. At the same time the first clinical appointment will be reduced to three months from four months, which has been found to be too long. This will have the additional advantage that students' appointments will change in future in January, April, July and October, times which fit better with the final examinations. It should be noted, however, that to effect this change all appointments starting in November, 1964, *will be of two months duration only.*

Finally, the Senior Dresser appointment will be taken a little earlier, so that final examinations will interfere less with Front Surgery duties.

This new scheme of clinical appointments is shown overleaf.

NOTICE

The Theatre Club

The major productions this term are both comedies, one familiar and well-loved, the other novel and provocative. *The Importance of Being Earnest,* by Oscar Wilde, needs no introduction; *Next Time I'll Sing to You* is by James Saunders, the new British playwright whose play, *A Scent of Flowers,* has followed the record of his first in enthralling most critics and audiences, while totally exasperating others. The remedy for balanced entertainment, of course, is to come to both! We hope our patrons will support us, between November 30th and December 11th, as enthusiastically as they have in the past.

	Group I	Group II
1st Period 3 months	First Clinical Appointment	First Clinical Appointment
2nd Period 3 months	Medical Ward Clerk (1st Three months)	Junior Dresser
3rd Period 3 months	Junior Dresser	Medical Ward Clerk (1st Three Months)
4th Period 3 months	Eyes, Skins, Anaesthetics and Fevers	Obstetric Dresser and V.D's.
5th Period 3 months	Obstetric Dresser and V.D's.	Special Appointment (2 months) and Sector (1 month)
6th Period 3 months	Special Appointment (2 months) and Sector (1 month)	Paediatric Appointment
7th Period 3 months	Paediatric Appointment	Eyes, Skins, Anaesthetics and Fevers
8th Period 3 months	Ear, Nose and Throat and Psychological Medicine	Senior Dresser
9th Period 3 months	Senior Dresser	Ear, Nose and Throat and Psychological Medicine
10th Period 3 months	Medical Ward Clerk (2nd Three Months)	Genito-Urinary, Fractures and Orthopaedics
11th Period 3 months	Genito-Urinary, Fractures and Orthopaedics	Medical Ward Clerk (2nd Three Months)
12th Period 3 months	Special Appointments:— Clerk in Neurology Chest Clinic Child Psychiatry Thoracic Surgery Paediatrics Pathology Experimental Medicine Endocrinology Diabetic Clinic Physiotherapy Psychiatry	Special Appointments:— as per Group I

J. C. HOUSTON.

NOTICE

Photographic Society

The Photographic Society continues to provide a well-equipped dark room, which will soon be moved into the new Student's Club. It is open to members only, so that the equipment which is of good quality will remain in the best possible condition. This year no formal lectures are being arranged, but if any members would like formal or informal meetings on any subject, the secretary will make all the arrangements. The Exhibition will be held as usual during the summer term.

If you have any photographic queries, or want some instruction on dark room techniques, get in touch with Lyall Richard-Bell (the Secretary), or Stephen Gregson (both clinical medical students), who will be pleased to assist.

Louis Pasteur

His Contribution to Medicine

by Rashid A. Aumeerally

"He was the most perfect man who has ever entered the Kingdom of Science."

It may be a great surprise to many people to learn that one of the men who have contributed most to medicine was a chemist. His discoveries with regard to disease are of greater value than those of all the academies of medicine in the history of the world. Medicine owes much to Louis Pasteur, who has delivered it from quackery and placed it on a real scientific basis. Though he was not a medical man, yet, guided by his genius, he has opened new paths across the most arduous studies of medical science. He has been the precursor of the medicine of the future: the creator and founder of infectious Pathology. Before Pasteur's time, nobody really knew for sure what were the causes of diseases. Lay people believed that diseases were the result of possession by evil spirits and that the only cure was to induce them to leave the body by supplication. Medical men were of the opinion that diseases were inherent in man, who was at their mercy and who could do nothing to prevent them from developing. According to them, prevention was not possible and their efforts were directed towards the finding of cures for the diseases. Pasteur's work on fermentation and spontaneous generation showed that diseases were caused by germs; and thus he raised the veil which for centuries had covered infectious diseases. That discovery was of so great importance to medicine and surgery that it prompted the surgeon, Lister, to say that "Pasteur's researches in regard to fermentation have shed a powerful light that has illumined the fatal darkness of surgery".

Pasteur's greatness lay in his scientific curiosity and the strong humanitarian spirit with which he was imbued. Being humane and sensitive to the sufferings of others, Pasteur devoted his life to studies which have allayed some of these sufferings which diseases and infections inflict on humanity. His work has directly or indirectly touched every home; he saved and, through his labours, is still saving human lives.

Louis Pasteur was an experimentalist par excellence. He started on his scientific career as a chemist, then he turned to biology and set his steps on the path which led him to carve his niche in the history of biology and medicine. His career presents a logical development: from the study of crystals, he is led to that of fermentation, and then in succession he attacks the problem of spontaneous generation, the maladies of wine and beer, the diseases of silkworms, the germ theory of disease of animals and men, and the production of vaccines for the prevention and cure of infectious diseases. His work illustrates the oneness of Science; it gives a scientific proof to

the unity of Nature, to the philosophy of Unism, which has always been dear to poets like Wordsworth, Tagore and Chazal.

Through assiduous work, with no special gift but that of perseverance, he had met with success in his researches, into which he brought the spirit of scientific method founded on the immortal works of Galileo, Descartes and Newton. Endowed with a resourceful mind, trained in methods of experimental investigation, he threw light upon everything he touched. While working on the chemistry of tartaric acid, he made his first discovery: the relation between the structure of the crystals and their power of rotating polarised light. The story goes that his excitement was such that he rushed out of the laboratory and ran on to the streets, shouting, "I have it", but unlike Archimedes, he was fully clothed.

He then turned to biology and worked on the problems of fermentation. Two theories of fermentation then reigned supreme: that of Berzelius, who thought that fermentation was simply due to contact with the ferment and that of Liebig, who claimed that it was caused by chemical decomposition and decay of the ferment. The problem had so much preoccupied Pasteur that he set out to investigate it. With only a student's microscope and a most primitive coke-fed stove, he took up the study of milk fermentation. He detected in sour milk the presence of tiny bodies in a grey substance. After isolating and then scattering in a liquid a trace of that grey substance, Pasteur saw some well-defined milk fermentation appear. The grey substance was the ferment, lactic yeast. He could see it budding and multiplying; he deduced that fermentation is a phenomenon correlative to life. His work on alcoholic fermentation led him to the same conclusion. He could not but reject the theories of Berzelius and Liebig, and enunciated his own to the effect that fermentation is associated with functioning of minute living organisms instead of decomposition of dead matter.

Having discovered the existence of these organisms, he had to find their origin; he was thus faced with the problem of spontaneous generation, which dated back to the times of Lucretius and Aristotle. Philosopher, poets, naturalists all believed in spontaneous generation. However, the theory became doubtful with the advent of the microscope, but it was left to Pasteur to give the death blow to this doctrine of spontaneous generation. When his intention of tackling the problem was known, he met with discouragement and disapprobation everywhere, even from his closest friends. In spite of these, he went his own way, with the firm belief that the investigation of spontaneous generation had become an imperious necessity. He realised full well that every progress was opposed by prejudice, petty jealousies and that a devoted obstinacy was required to overcome the opposition.

With determination, Pasteur set himself to work. He argued that if germs were present in the atmosphere, they could be detected by aspirating air through a plug of cotton wool. When he did so, the wool became black with various kinds of dust, which consisted of spores and germs. He carried experiments to show that the most

putrescible liquid remained pure indefinitely if placed out of reach of atmospheric dusts; but if a particle of the black cotton wool filter was placed in the pure liquid, an immediate alteration was caused. Not many people were convinced by his experiments. So he devised some elaborate ones to satisfy them. He invented small glass flasks with a long, curved neck; he filled them with a putrescible liquid, which he deprived of germs by ebullition; the contents of the flasks were in contact with the outer air only through the curved tube, but the atmospheric germs were deposited in the curve of the neck without reaching the liquid. The latter remained pure and in order that alteration should take place the vessel had to be inclined until the point where the liquid reached the germs deposited in the neck. Other experiments consisted in boiling the liquids in small phials, which were then sealed. No putrefaction occurred. The experiments were repeated with the same success using blood or urine. Contamination of the liquids occurred only when the phials were unsealed and air came in contact with them. The partisans of the doctrine of spontaneous generation did not trust Pasteur; they repeated those experiments, and by accident or by design, their results were different from those of Pasteur. But the latter disappointed them by pointing out the errors they had committed, errors difficult to recognize at first. By crucial and clearcut experiments, Pasteur solved the problem of spontaneous generation and by doing so he threw a flood of light upon related phenomena.

Pasteur was a progress-seeking man. Having solved the problems of fermentation and spontaneous generation, he then embarked on studies which would make of him a great human benefactor, for those studies led him to announce the germ theory of infections and diseases. Perhaps the prophetic remark made by Robert Boyle had given him the clue to his discovery: "he that thoroughly understands the nature of ferments and fermentation shall probably be able to account for the diverse phenomena of several diseases". With his intuitive genius, he had already foreseen the possibility that diseases might be caused by living germs. As an indefatigable worker he set upon to prove it by art of experimentation, for in experimental science it is always a mistake not to doubt when facts do not compel one to affirm. For Pasteur, work was a pleasure and alone profitable to man. Throughout his entire life, work was his constant inspiration. He did not conceive greater happiness than his laboratory life and no wonder he was nicknamed the "laboratory pillar". His advice to the young students was to "live in the serene peace of laboratories and libraries". And Louis Pasteur was a man who did what he preached.

One may ask why other scientists did not discover the causes of infectious diseases before. Did chance favour Pasteur? He himself gave the answer: "in the field of observation, chance favours only the prepared mind". Nothing is left to hypothesis. In order to further prove his germ theory of disease, he did some careful and critical experiments on animals, namely the silkworms which suffered from pebrine, chicken stricken by cholera, and cattle and sheep overcome by anthrax. He searched for the germs in the blood of those animals,

isolated and cultured them. When they were injected into healthy animals, the latter became infected and died. Pasteur thus convincingly proved that diseases are caused by germs. His great ambition, to arrive at the knowledge of causes of putrid and contagious diseases, was fulfilled. Though the theory he enunciated is a scientific truth, yet it was met with a fierce opposition. He was hounded and laughed at. But Pasteur was not deterred in his work. The best proof he had that he was on the right track lay in the uninterrupted fruitfulness of his work. His critics revived the old problem of spontaneous generation, which he had proved to be untrue; they still maintained, without any proof, that diseases cannot be caused by germs from the outside. One of them in parody to Abraham Lincoln's definition of democracy wrote : "disease is in us, of us, by us".

With Pasteur's discovery came the era of antisepsis. Successful applications of his discoveries were made in surgery. One of the first to put Pasteur's precious discovery into practice was the leading surgeon, Lister, who did much to eliminate infections from surgical operations. His name is often coupled with Pasteur in antiseptic surgery. In his days, hospitals were hotbeds of infection and considered as vestibules of death. Mortality rate after operations was high. Strangely enough, the mortality rate in preceding centuries was less because antisepsis was then practised unknowingly through cauterization by fire and boiling liquids.

Lister became convinced that infectious germs gained access to wounds from the outside. He therefore improved surgical technique to prevent this. His method consisted in disinfecting the surgeon's hands, instruments, sponge and bandages with a solution of carbolic acid. The seat of operation was afterwards sprayed with the disinfectant. This method brought a drastic fall in mortality rate. Lister's indebtedness to Pasteur is revealed in his letter, "the truth of germ theory of putrefaction has furnished me with the sole principle by which the antiseptic system could be perfected". Pasteur did talk of asepsis also, but he was not listened to. When he advised surgeons that their instruments should be heated to destroy those germs, they did not understand what he meant.

Humanity was already greatly indebted to Pasteur for the discoveries he had made so far. He was urged on to more work by his insatiable thirst for knowledge. With his ingenious mind, he made another discovery: the production of vaccine. He discovered that viruses could not only be cultured but could also be attenuated. His investigations on rabic virus showed that the seat of the virus was the medulla of the brain and not in the saliva of the animals, as was supposed. When the virus was injected into rabbits, they became rabid and died. Pasteur used the medulla of the dead rabbit to prepare the attenuated virus. A fragment of it was suspended in a sterilised phial, the air in which was kept dry by caustic potash. The phial was kept warm and it was closed to prevent atmospheric contamination. As the medulla became dry, its virulence decreased until it became absolutely extinguished. The inactive medulla was crushed and mixed with pure water and injected into dogs. This was

followed by injections of medulla of increased virulence. The final injection, the most virulent one, was prepared from the medulla of a rabbit which had died on the same day. Those animals became immune to the rabic virus. Pasteur thus discovered that attenuated virus could be safely used as a vaccine, even on human beings. The cure for rabies had been found and humanity was delivered from that dread horror. Contagious diseases were thus conquered by preventive inoculation.

No one else realised better than Pasteur himself how much mankind has benefited by his labours. He wanted to do and could have done much more but for old age and illness. While on his deathbed, the consolation he felt even though his end was near can be expressed in the words of Edward Hart, "*si l'œuvre doit durer, qu'importe que l'on meure*".

The Nurses' Prize-Giving

The Nurses' Prize-Giving was held rather later than usual this year, on Thursday, 15th October, in the Physiology Theatre. The prizes were presented by Lieutenant-General Sir Brian Horrocks, K.C.B., D.S.O., M.C., who made a delightful speech and included some charming reminiscences of some of his own experiences as a patient. Mr. E. G. Slesinger took the chair for the first time since he became Chairman of the Hospital. Miss A. L. Perkins gave Matron's report on her behalf and reports on different aspects of Nurse Training were given by Miss B. B. Whyte, Principal Sister Tutor, Sister A. Moss, Assistant Matron, York Clinic and Miss D. Compton, Lady Superintendent of Nurses, Guy's Evelina Children's Hospital. The Superintendent, in his closing remarks, paid a well-deserved tribute to Miss Perkins for all the work which she was carrying out in Matron's absence. This was warmly applauded. Following the ceremony, tea was served in the Nurses' Home.

We regret that pressure of space does not allow us to publish the list of prizes in this issue; the omission will be rectified in the next.—EDITORS.

NOTICE

Bournemouth and Wessex

The Annual Dinner of the Guy's Hospital Society, Bournemouth and Wessex, will be held on Wednesday, 2nd December, at 8.15 p.m., at the Heathlands Hotel, East Cliff, Bournemouth. Any Guy's graduate in the Wessex area is cordially invited to attend, and to contact me if he has not already received particulars.

N. J. WOOD.

51, Lansdowne House,
Christchurch Road,
Bournemouth.

75th Anniversary of Guy's Dental Hospital and School

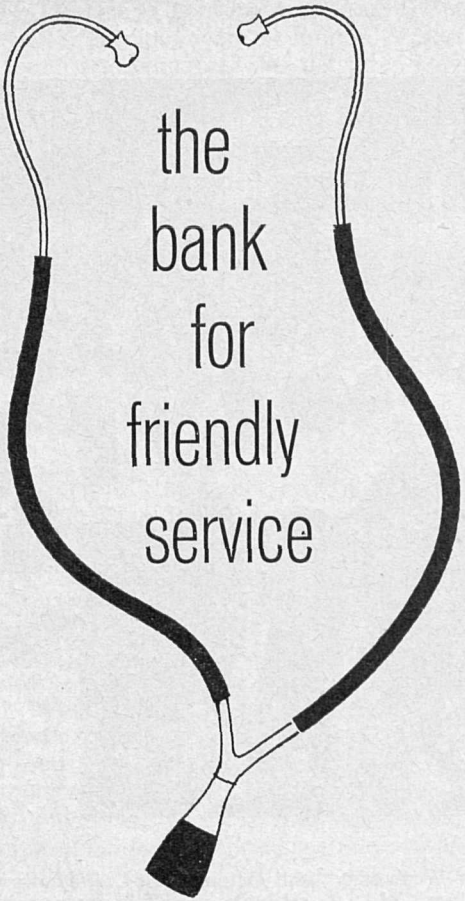
Top left ; The Company

Above : Mrs. Warner and Cake

Left : (from left to right) Sir John Wolfenden, Lady Wolfenden, Sir Rowan Boland

On Wednesday, 14th October, 1964, a Dinner was held at the Dorchester, Park Lane, W.1, to celebrate the 75th anniversary of the foundation of the Guy's Hospital Dental School. The Dean of the Medical and Dental Schools, Sir Rowan Boland, was in the chair, and 350 persons, comprising Guy's men and distinguished guests, accompanied by their ladies, enjoyed a most happy and memorable evening. The distinguished guests present included Sir John Wolfenden, Sir George Godber, Surgeon Rear-Admiarl (D) W. Holgate, Lord Cohen of Birkenhead, Sir Russell Brock, Professor R. V. Bradlaw, Sir Harold Himsworth, Lord Ritchie of Dundee, Sir Thomas Creed, Sir Douglas Logan, Sir Geoffrey Marshall, The Rt. Hon. A. E. Wicks, Surgeon Rear-Admiral (D) P. S. Turner, Brigadier H. W. South, Air Vice-Marshal H. Keggin, Professor P. O. Pederson, Professor M. A. Rushton, Professor A. B. MacGregor, The Very Rev. E. W. Southcott, Mr. D. Hindley Smith, members of the Board and Council of Governors of both the hospital and school, including the Chairman of the Board, Mr. E. G. Slesinger, the Chairman of the School Governors, Mr. W. M. Mollison, Mr. F. S. Warner, Dean of Dental Studies at Guy's Hospital, and the Deans of the London Dental Schools.

The atmosphere throughout the evening was that of a great family occasion which began with the " signing of the book", followed by a reception by Mr. and Mrs. E. G. Slesinger, Mr. W. M. Mollison and Mr. and Mrs. F. S. Warner.



National Provincial

The Guys Hospital Office, which is opened for your especial use, is under the management of Mr. W. C. Frankum, Southwark Branch, 12-14 Southwark Street, London S.E.1, and enquiries will be welcomed.

During the evening the following telegram was received from Buckingham Palace:—" This is to acknowledge the kind and loyal message which has been sent to the Queen, as Patron of Guy's Hospital, from the dinner this evening to commemorate the 75th anniversary of the establishment of the Guy's Dental Hospital and School. You can assure the company that their message will be shown to the Queen on her return, and will, I know, be deeply appreciated by Her Majesty. Private Secretary."

Dinner was preceded by a unique Grace said by the Rev. A. M. Saint, Hospital Chaplain. Throughout dinner the company enjoyed not only good food and wine, but also music from the resident string orchestra, all in the light of Guy's blue and gold coloured candles. The great moment of the evening came when Mrs. F. S. Warner, wife of the Dean of Dental Studies, cut the magnificent birthday cake to the traditional singing of "Happy Birthday." The cake, which was made in the hospital kitchens by the Hospital Catering Officer, Mr. W. E. R. Kingston, and his staff, weighed 120lbs., measured 32 square inches and was decorated in multi-coloured icing with, of course, candles in the Guy's colours.

Dinner was followed by three speeches. The first was by Professor P. O. Pedersen, Dean of the Royal Dental School, Copenhagen, who, bringing birthday greetings from Denmark, paid tribute to the high standards of teaching and research which have become a Guy's tradition of international repute. He then presented first a gift to the School in the form of a Copenhagen china polar bear, followed by personal gifts to the Dean and Mr. Warner. The toast to Guy's Hospital Dental School was proposed by Sir John Wolfenden who, in a most amusing and delightful speech, conveyed birthday greetings to the School and gave a lighthearted account of his life as Chairman of the University Grants Committee.

The response to the toast was given by the Dean of the Medical and Dental Schools who, after thanking Sir John for his toast and birthday good wishes, briefly traced the history of dental teaching at Guy's both before and after the foundation of the School. He described how the School began its life in an outbuilding behind the ward-maids' hostel, with dental mechanics taught in a lean-to shed, and it was not until 1893 that the present Department and School was occupied. Sir Rowan pointed out that when the School was founded there were only two students, but to-day there were four hundred and twenty, and all over the Commonwealth and the world where dentistry is practised, Guy's men are to be found. However, it was to the future that Sir Rowan was looking when he recounted that "This expansion over the years has been achieved by virtue of hard work and enthusiasm of the staff, which has overcome the cramped and frustrating conditions in which they work. Since the present School was built, the buildings have proliferated with every natural and unnatural biological process known to man—absorption, assimilation, autolysis, catalysis, mitosis, metaplasia, synthesis, transplantation, intercollation, infiltration and metastasis. Every space has been filled up and every corridor eliminated. It has been pushed out on stilts, buried under the earth, and every flat roof has been covered with a hut. Finality has been reached—further expansion is impossible, and there stands the Dental School, throbbing and humming with energy. It must expand or burst." Sir Rowan concluded: " Our plans are ready—the Staff and Governors are agreed. If we get the word to go we could build a new school in three years and Guy's Dental School would be physically, at least, at the top."

It was indeed a great evening, one which succeeded in matching the occasion and one which we shall all remember for a very long time to come.

M.N.N.

NOTICE

Catholic Society

In November, at the Chaplaincy in Soho Square, there will be a cocktail party for the United Hospitals' Catholic Society.

At Guy's there will be a discussion on the theme, "The Legitimacy of Human Experimentation", some time in December. Final dates are still to be arranged.

PETER SIMS
(Hon. Sec., Catholic Society).

CORRESPONDENCE

New Speech for None

SIR, From the speech therapist's point of view, laryngectomised patients present a variety of problems. I have known patients to produce pseudo-voice within a few days of operation, without any assistance. When assistance is given, it is not necessary to draw attention to "swallowing" air, but relaxed control of breath from diaphragm level has to be achieved or air is noisily blown through the tracheostomy when voicing is attempted.

The means of eliciting voice is to some extent by trial and error. Many patients achieve this by articulating short repetitive syllables, e.g. " pa-pa-pa-", " puppy; puppy". The "p" is not a plosive, but an *implosive* consonant which often induces a short oesophageal voicing. Once pseudo-voice has been produced, practice will do the rest. If a patient has not heard oesophageal voice, the therapist can (by cheating!) produce a good imitation. The length of time required to achieve good voicing varies a great deal, and some do not acquire a useful standard.

In addition to the external electro-larynx mentioned by Mr. Holden, an oral vibrator is also available in this country. This is a small electrically operated vibrator built in to a dental prosthesis. A very thin flex from the corner of the mouth leads to a small press switch which can be easily and unobtrusively operated.

Yours, etc.,
LEONARD WILLMORE, F.C.S.T.
(*Speech Therapist to Guy's Hospital.*)

Lourdes

SIR, It might be of interest to add one case history to your last issue's very fair and interesting comments upon Lourdes by Michael Mitchiner.

The writer some eight or ten years ago was told of a patient by a general practitioner colleague. The man had been loaded on to a 'plane for Lourdes looking as if dying on a stretcher. The story was that some four or five months before, following a " pneumonia " with haemoptysis a carcinoma bronchi had been diagnosed. At operation a most extensive highly malignant growth had necessitated pneumonectomy and removal of invaded pericardium. Prognosis was thought pretty hopeless, and a broncho-pleural fistula with large effusions necessitating frequent aspiration followed. Then inability to take food by mouth and very great pain on attempting to swallow food had developed, and he was in hospital " dying " on morphia four-hourly when he asked if he could go to Lourdes. My friend agreed to give him an injection on the journey, following which he was carried to the Hospital in Lourdes.

Three days later he met the man being pushed round in a wheeled chair, and a few days later again met him walking and looking very different. At the end of the week when he returned by 'plane, the patient sat in the next seat and, the doctor being air-nauseated, the patient ate his lunch as well as his own! He had had no injection and had eaten well from the day following his arrival at Lourdes.

Some seven years later the writer went to Lourdes, contacted the Medical Bureau and found himself asked to come and demonstrate a "case" who had returned for an annual check. The patient was English and I the only doctor there. The case record contained the hospital notes of a number of my colleagues in Middlesex and Hertfordshire, and the history made it clear that I was meeting the man I had heard about at the time of his first visit.

He was very well and in continuous work. Radiologically the right chest was completely opaque of course. The interesting thing to me was that the Medical Bureau was entirely unwilling to consider any question of a claim to a miracle as the fluid aspirated after the operation had been assumed in England

to be due to recurrent malignancy and had never been examined for malignant cells. Without this proof of recurrence, any suggestion of a miracle was entrely unacceptable.

Yours, etc.,

F. HARWOOD STEVENSON.

140, Harley Street,
London, W.1.

Christmas Tea

SIR, In the Governors' Handbook for 1909 is the following paragraph:—"A tea to about 500 poor children is given every year on Christmas Day in the Out-Patients Department. The original proposal came from Mr. Landon, a student of the Hospital, at Christmas, 1897, and the funds are raised by subscription amongst Governors, students and nurses of the Hospital and Institution."

Now, after 67 years, the Governors have regretfully agreed to discontinue the party, which latterly has been held just before Christmas in the Charterhouse Club in Crosby Row. From the attendances at the last few parties it has become clear that the need no longer exists and that the Borough children of today have many other competing pleasures at Christmas time.

There is a small balance in the tea fund and this will be used in due course to provide additional amenities for the Children's Department when it is re-accommodated in the proposed Tower Block.

As so many of your readers have generously contributed to the fund in the past, I thought they would like to know the reason for allowing the tradition to come to a graceful end.

Yours, etc.,

A. H. BURFOOT,
Clerk to the Governors.

Dental Anniversary Dinner

SIR, This edition of the *Gazette* contains an account of the Dinner held to celebrate the 75th anniversary of the Dental Hospital and School. On behalf of those who were present, I would like to thank Mr. W. E. R. Kingston, the Hospital Catering Officer, and his staff, for having produced such a delightful anniversary cake; also to thank Miss Muggeridge, of the Counting House, who was responsible for all the clerical work and the seating arrangements.

Yours, etc.,

F. S. WARNER,
Dean of Dental Studies.

NOTICE

The Guy's Hospital Science Club

The next meeting of the Science Club will be held in the Committee Room in the Medical School on Wednesday, 11th November, at 4.45 p.m. Our guest speaker, Dr. W. W. Sargant, from the Department of Psychological Medicine at St. Thomas' Hospital, will give a talk entitled *Mechanisms of Brain-washing Conversion,* which will be illustrated by a film. The chair will be taken by Dr. D. Stafford-Clark. A cordial welcome is extended to all members of the teaching and research staff of the Hospital and Medical and Dental Schools. Tea will be served at 4.30 p.m. in the Staff Common Room.

R. O. WELLER (*Hon. Sec.*).

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SPORT

RUGBY FOOTBALL

Unfortunately the progress of the Club has been brought to a standstill by a very virulent contagious germ. All 1st XV training sessions have had to be cancelled, as has also the game with Cheltenham. This is a big blow, as the team have recently given some particularly encouraging performances, and it will take time to again reach peak fitness.

It was good to see a past Captain of the Hospital, A. Lloyd-Edwards, lead the United Services, Portsmouth, against Guy's at H.O.P. The result was a good win for the Hospital, who had to fight hard to win 14—11 after leading 14—0. Having dominated play in the first half, it looked as though the side relaxed their grip somewhat, and the result might well have been different had the Services got into their stride earlier.

The game against the Metropolitan Police was played in very wet conditions, and Guy's were somewhat unlucky not to gain a decision. Morris made what appeared to be an acceptable mark which the referee disallowed, and from this the Metropolitan Police scored, leaving the Guy's defence rather startled. The Hospital pack were outjumped and outhooked for much of the game, but made up for this with some fierce tackling. Bevan clinched a draw ten minutes from no-side with a dropped goal following a heel from the base of a scrum to make the score 6—6.

Justice was again not really done when Guy's were beaten 27—3 by Bedford. The numerical tally does not reflect the true state of the game. In the opening half the Hospital played excellently and gained much possession, the final pass, however, going astray on several occasions. Ross playing on the wing, made a good run early on which only just failed to earn its reward, and Bedford at the change over were only 3 points in front when in fact Guy's should have been.

In the second half the heavy Bedford pack completely outshoved the Hospital, and Perry bulldozed his way through for two tries. Bedford then opened the game up and only Morris managed to cross the opposition line.

ASSOCIATION FOOTBALL

Now that the season is well under way, the 1st XI are beginning to show their true form. In the first round of the Inter-Hospitals Cup, Guy's are drawn against K.C.H. This game should prove to be no more than a practice, as a below strength side has already beaten K.C.H. 6—0 in the Inter-Hospitals league.

Guy's players have been gaining honours in the United Hospitals fixtures, of which two have been played. No less than six members of the Guy's team were selected to play against Cambridge University at Cambridge. The University side contained eight Blues and were beaten 6—3. All the U.H. goals were scored by Guy's players (Powell-Jackson 2, Atkins 1, Elias 1, Cutler 1, and W. W. Davies 1), and P. Davies was the only other one not to do so.

The performance must give Guy's an outstanding chance of retaining the Inter-Hospitals Cup, as at least one other member of the Guy's side has also played for U.H.

In the University of London Cup, played at H.O.P., Guy's beat the Sir John Cass College 4—1, Elias (2), Cutler and Powell-Jackson again being on target. Unfortunately the only opposition goal was netted by a Guy's inebriot

Reports and Results

RUGBY

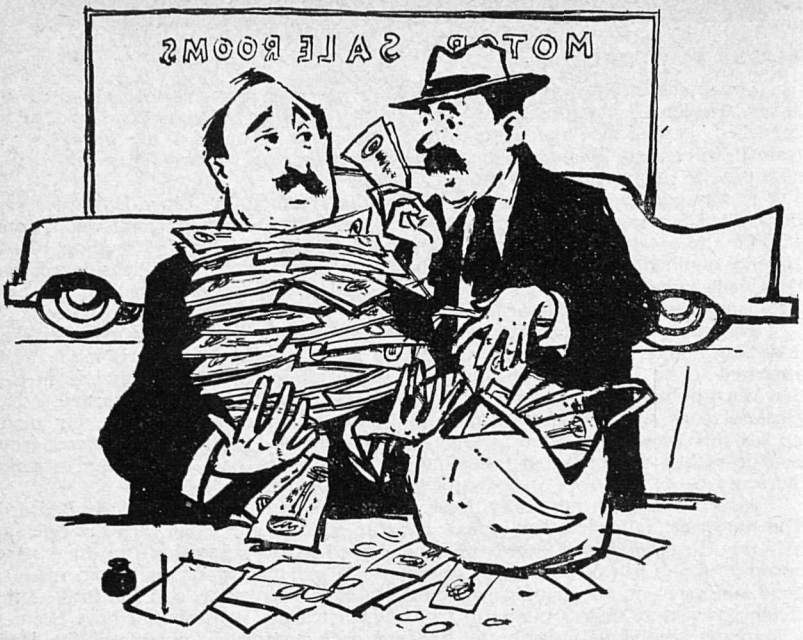
GUY'S v. U.S. PORTSMOUTH.

At H.O.P. 3rd October, 1964.

Result—Won 14—11.

The Hospital won an exciting and hard-fought game against U.S. Portsmouth by a goal, a drop-goal and two tries to a goal, a penalty goal and a try. The familiar figure of D. R. A. Lloyd-Edwards, who captained Guy's in the 1961-62 and '62-'63 seasons, led the Services into the field. Guy's were captained by J. A. Edgar in the absence of I. A. Baker, who was unfit. The latter's place was taken by H. Sharp, who moved from blindside wing-forward. R. Brown moved from No. 8 to blindside, and D. Hartley filled the vacancy. D. Fleming-Jones was also injured and his place, in the centre, was taken by C. J. Wright.

The continuing drought made for a harder pitch and a hot, sunny day. The Hospital kicked off with the wind at their backs, but were soon on the defensive. Hartley, covering



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well, fielded a kick ahead, but in the ensuing line-out, he injured his ankle, which reduced his mobility for the remainder of the game. The Hospital's play clearly had a sense of urgency about it, and although the Services' centres made some strong individual runs early on, these were curtailed and defence turned quickly to attack. The half-backs, Rowlands and Bevan, and Morris at full-back, used the wind to find touchers deep in the opposition's territory, and the Services were to enter Guy's half on only a few occasions in the remaining thirty minutes. The Hospital opened the scoring when from a scrum five yards out and in front of the posts, Bevan broke on his own and, seemingly held at one moment, he wriggled free to dive over and score. The opposition took advantage of Morris's preliminary shuffling to charge down the kick. This early success increased Guy's effort. The loose ball was hunted with rare gusto and from a loose maul near the Services' line, Kingdon emerged with the ball in his hands to lunge over. The conversion attempt failed. There was no easing of pressure, and when Ashcroft rushed the opposition's full-back into mis-kicking, Morris found time to drive over a dropped goal from 40 yards and wide-out. Play seemed to be all of Guy's making, and just before half-time, the Hospital went further into the lead. A good service from the tight gave Rowlands time to place a kick over the opposing three-quarters and short of the full-back. Edgar took the ball on at his feet, and in the scramble beneath the posts, Rowlands was there to get the touch-down. Edgar converted.

The Hospital changed over fourteen points ahead and there was every indication that this total would be increased. In fact, Guy's did not score again and U.S. Portsmouth came to within three points of drawing level. The main reason for this reversal was the response of the Services' pack to the example and fiery exhortations of their captain, Lloyd-Edwards. Using their superior weight, the Services succeeded in gaining an increasing shove of the ball from tight and loose, and used the wind to keep play in Guy's half. Taking quick advantage of a poor throw-in, the Services' winger pounced on a loose ball to score. A penalty added three more points, and another try under the posts made for the conversion, taking their total to eleven. The Hospital occasionally broke free and put into effect some useful attacking moves. Following a long throw to Bevan over the line-out, Edgar strode through the centre, but Wright was crowded out in the corner. Rowlands, Allan, Kerner and Sharp also cut away at times, but the chances petered out. In the dying minutes, the Services launched the last desperate attacks. The Hospital defended gallantly, however, and the final whistle brought well-earned relief to players and supporters alike.

The standard of the Hospital's play was a marked improvement on previous weeks, mainly for better use of the loose ball, determined and straighter running by the backs, and better backing up by the forwards. No one player can be singled out for merit, in what was a splendid team effort. IAN BAKER.

Team: A. M. Morris, R. Kerner, J. A. Edgar (capt.), C. J. Wright, A. J. Allan; B. Rowlands, D. R. Bevan; J. E. Davies, P. Ashcroft, R. Stansfield; P. K. Peace, A. J. Kingdon; R. Brown, D. Hartley, H. Sharp.

HOCKEY

The hockey club's promising start appears to have been a false omen for the time being. Against U.C.H. an "A" team showed little sparkle or enthusiasm after building up a 3—0 lead shortly after half-time, and there was no further score. The right wing pair played well together but far too many chances were missed through over-eagerness. It was noticeable that the reserves played well and Kendrick, in particular, looks like developing into a very useful defender.

Although the Romford game was lost, this was no disgrace; but it is hoped that the hospital will now be able to combine against competent sides as a result of this experience.

An "A" team game against Charing Cross Hospital was won 4—2, although the score should have been 2—2 but for two considerable errors by their umpire. This was a feeble display with almost complete lack of thought and co-ordination—something that should be developing quickly with cup games not far away. First the ability, and then the desire, to pass accurately was lost; and there were few individual performances that merited anything but passing! Perhaps with a little better spirit, that better opposition may give, team-work may click again: the material is there.

K. E. HAYNES.

GUY'S v. ROMFORD.

17th October.

Result—Lost 0—1.

In this game Guy's failed to produce the sort of form that had been developing in earlier matches. The defence was all at sea and there was no combination, and generally very little thought about pasisng or positional play.

Romford were soon attacking and early on scored from a well taken short corner. They continued to press and were unlucky that the whistle had gone when they scored again, and minutes later when a penalty stroke was not awarded them.

Guy's fought back after this and played some presentable hockey, and Bennett was unlucky with a good shot from a penalty corner.

The second half was marked by some excellent goal-keeping by Hirst; but in mid-field far too many passes went astray from both defence and attack, giving the opponents' centre-half the opportunity to play a fine game. Together with his inside forwards, who were virtually unmarked, he was allowed to dominate mid-field play.

The square pass, and the wings, could be used to good effect; and there must be more effort to get unmarked when playing against a defence that knows its job. Thoughtful play in the previous games seemed to be forgotten, and at times there appeared to be more verbal than physical effort. It is hoped that some lessons may have been learned, but a disappointing display against useful opponents.

Team: A. Hirst, P. Davy, K. Haynes (Capt.), J. Crafts, C. Brooks, M. Turfitt, R. Carruthers, S. Cripps, M. Appleby, P. Bennett, P. Liddiard.

GUY'S v. H.A.C.

Result—Won 2—0.

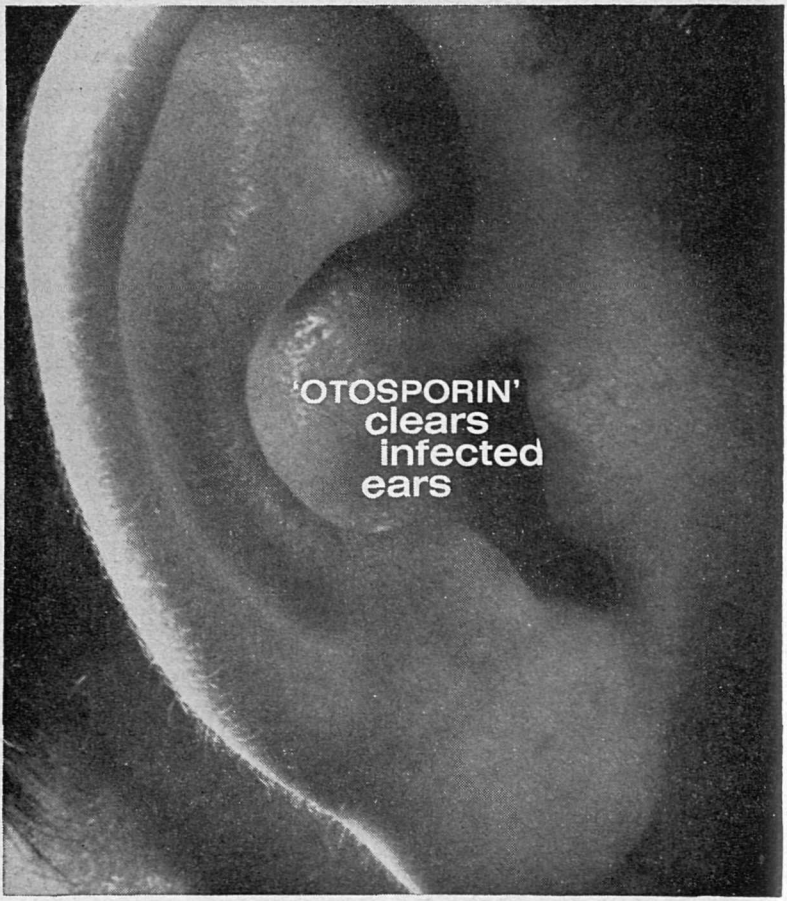
At H.O.P. Sat., 24th October.

This was a better performance than has been seen in the last few matches, and the team again showed themselves capable of playing some intelligent hockey against weaker opposition.

Guy's started without the services of Hirst in goal, who is to be congratulated on playing in his first county game for Derbyshire.

Guy's took a long time to settle down, but later on in the half some good movements were developed, and a freshman, P. Brown, showed himself to be an admirable deputy at inside forward. Several chances were narrowly missed and Carruthers was unlucky when he hit the post.

There was no score when the sides changed round. Guy's continued to dominate, although both backs had some worrying lapses. However, the half-backs played well and Crafts in



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particular looks like giving any opposing left wing a severely testing time this season.

The score was opened when Loader shot from a short corner, three previous efforts being wasted by inability to stop the ball. Guy's continued to produce a large number of slightly inaccurate shots, and the score failed to improve, as it surely should have done, until Brown, following up well, scored just before the final whistle.

An encouraging display on an ideal day for hockey, with two admirable umpires, who controlled the game excellently.

K. E. HAYNES.

Team: C. Coe, D. Loader, K. Haynes, J. Crafts, C. Brooks, N. Turfitt, R. Carruthers, J. Cripps, M. Appleby, P. Brown, P. Liddiard.

BOXING

GUY'S v. SANDHURST

In a close and lively meeting a young Sandhurst team defeated Guy's by 4 bouts to 3. By the time your correspondent had been summoned from the Grapes, Guy's first contestant, said to be C. Havers, had conceded his bout in the second round to Wardle of Sandhurst. Onyeama then met Blease of Sandhurst in a skilful, hard-hitting, exhausting bout in which the Sandhurst man's slightly quicker and stronger close work was throughout just contained by Onyeama's relentless straight lefts, which earned him a well-deserved victory.

Crawford narrowly lost to Rowbery, of Sandhurst in a fight where both boxers failed to take advantage of the lapses in defence which followed most scoring punches. Hughes gave a remarkable, if not brilliant exhibition of defence against his much taller opponent, Jayawardhana, but although he began to score towards the end of the encounter he was clearly out-pointed when forced to retire with a cut eye in round three.

The shorter but stockier Weall, of Sandhurst, was able to chase Durant with volleys of frequently scoring left jabs and won fairly comfortably on points, having put Durant down in the first round. At flyweight, the more aggressive Guy's man, Bethell, had the better of Gonda in a wildly swinging "long range" bout in which few punches landed and even fewer scored.

Gibson and Hornel provided the most skilful bout of the evening. After many fast exchanges in round one, where Gibson was marginally more successful, neither boxer was able to penetrate the other's defence significantly in the quieter second. In the third round, however, the much more aggressive Gibson took command with a series of fast, close combination punches, and defeated the still strong and game Hornel on points.

Sandhurst are to be congratulated on their success and Onyeama and Gibson on their victories in the two really good bouts in an interesting and enjoyable evening.

DAVID HENDRICK.

HOSPITAL INFORMATION

HOSPITAL INFORMATION

GUY'S HOSPITAL

Surgical Round at St. Olave's Hospital

On every Tuesday until further notice a ward round will be conducted by Mr. J. D. Maynard at St. Olave's Hospital from 10.30 a.m. until 12 noon.

As there is a wealth of clinical material at this Hospital it is hoped that as many students as possible will avail themselves of this opportunity.

Students are asked to make their own way to St. Olave's.

PASS LIST

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Jack Wheatley Memorial Prize

Prize: N. J. Knott.

Carleton Hunter Memorial Prize

Prize: Miss S. V. Tate.

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MARRIAGE

On 3rd October, 1964, at Greenwich Parish Church, William T. Lamb, B.D.S., L.D.S., to Margaret C. Sellin, S.R.N., S.C.M.

BIRTH

GARDNER— On October 8th, to Julie, M.B.B.S., and Nigel, F.R.C.S., a daughter, Nicola Jeannette

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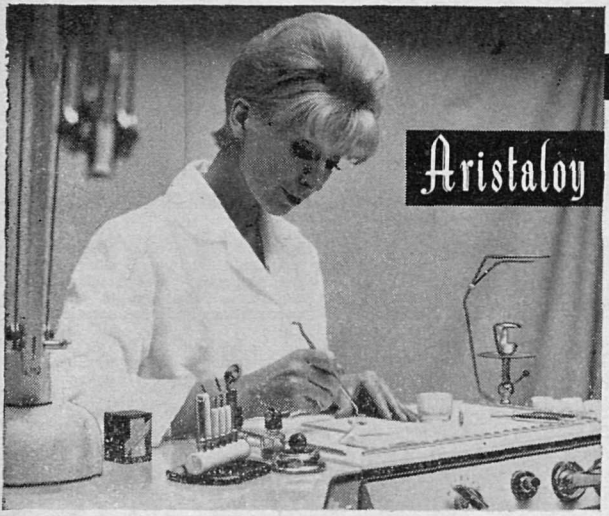

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GUY'S HOSPITAL GAZETTE

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Editors *B. H. Hicks*
P. Bowden

Sports Correspondent *N. J. Knott*

Guy's Hospital, London

PASSIM

The Queen's Speech

However full the election manifesto, however explicit the Queen's Speech, the social policy of a new Government is always more an unknown quantity than a known one; never more so than with Mr. Harold Wilson's. Examination of the Speech throws little light on specific changes in the Health Service.

Action will be proposed to modernize and develop the Health and Welfare Services could have come from either major party, though the individual must judge which with more sincerity. The new Minister has long cried opposition to the Hospital Plan, and it will be of interest to see what new approach he brings to the problem of constructing and renovating the nation's hospitals. He will be much preoccupied with the state of general practice, a source of anxiety to both doctors and all apostles of social medicine, among whom Mr. Robinson was one of the first chosen. The profession's plea for more beds in mental hospitals is likely to obtain sympathy from Mr. Robinson who, in Opposition, has shown his concern with this special problem. Yet Governmental action is a far cry from Ministerial sympathy, the more so when economic storms provide abundant reasons, or excuses, for deferment.

Steps will be taken to increase the number of doctors and other trained staff in the National Health Service. If the rate of training doctors is the "limiting factor", then one should look to the Ministry of Education and the Universities for the greatest efforts and most urgent expansion. If the principal defect is in the retention of doctors in this country, then the conditions of service must be changed. Salaries are the direct responsibility of the Prime Minister, to whom the Review Body is answerable; it would be repetitious to declare what is needed and it would be foolish to prophesy what will come. The other conditions of service are in even more of a melting pot, stirred regularly by differences within the profession itself.

Prescription charges for medicine will be abolished will certainly complicate any rethinking of family medicine, and it is a pity that the Government committed themselves so completely in their manifesto. Paradoxical maybe, but the only specific proposal (*re* Health) of the Queen's Speech might better have been left open. It is difficult to see how such abolition of charges will solve any problems of the Health Service, and the moral commitments of the Service to the needy are assured by other forms of assistance.

It is difficult to reconcile the apparent emphasis of the new Government on social services and the decision to exclude the Minister of Health from the Cabinet. A co-ordinator for the social services will be of Cabinet rank, but the Health Service deserves particularly strong representation at this present time. The new Minister of Health, Mr. Kenneth Robinson, has earned respect from all sides in the function of his "shadow" role in Opposition. He must yet be proved as a Minister, but he is known to be clear-thinking and a diligent worker,

possessed of a strong belief in the ideal of a humane and efficient Health Service. Whatever his political colour he has a task indeed, to make the humanity and the efficiency real. We hope that he may succeed, or begin to succeed.

Premature Labour

Santa Claus is already an incumbent in Lewisham so there is no reason why all the borough's starry-eyed, credulous children should not receive a paternal pat from some old age pensioner tired of zebra crossing duties. The patriarch of presents has to start his mass benefaction well in advance nowadays—an indication of the population explosion. Redhill has a neat row of fairy lit Christmas trees already potted and pruned. Uletide is becoming autumnal, although they will be put to test to remain evergreen. A week ago one shop in Oxford Street was already displaying its fineries amongst spikeless polythene holly with strangely luminous and numerous berries all tied with last year's tawdry tinsel. In the eyes of its designer the exhibition must lie like a cultural pearl in the palm of the hand that is Oxford Street.

Students are busy arranging interviews as postmen or barmen and some manage to achieve the dizzy heights of temporary-assistant-leading-porter at one of the railway's goods yards, whilst others have the suavity to get employment as shop assistants, and for them is the prospect of added remuneration throughout the January sales. These extra-curricular jobs give students an opportunity to see the other side of the fence and often one wonders why one is a student at all. Somehow the fun and balloons and bubbles at the end of it all seem a little forced, for it is lacking spontaneity and has been a long uphill grind, till many simply flake out, glass in hand, with "High Noon" passing by unnoticed on the television.

At a recent meeting, the *Gazette* Committee regretfully accepted the resignation of Dr. Davis from the Editorial chair. At the same meeting, Mr. Paul Bowden was appointed Assistant Editor.

GUY'S DIARY

NOVEMBER

EXHIBITION.			*Amputations.*
14th	S.	10.00	Departmental Round. Clinical Theatre. Conducted by Mr. W. A. CRABBE.
16th	M.	1.00	Dr. DEUCHAR. Clinical Lecture. *Resuscitation.*
19th	Th.	1.00	Mr. LAWRIE. Clinical Lecture. *Splenectomy.*
19th	Th.	5.00	Neurosurgical Round. Clinical Theatre. Conducted by Mr. SCHURR.
20th	F.	1.00	Dr. SCOTT. Clinical Lecture. *Skin Changes in General Disease.*
24th	T.	1.00	Dr. EVANS. Clinical Lecture. *Fashion in Infant Feeding.*
27th	F.	1.00	Mr. BRAIN. Clinical Lecture. *Diagnosis and Management of Lung Abscess.*
28th	S.	10.00	Clinico-Pathological Meeting. Clinical Theatre.

The Development of Neurosurgery

PETER H. SCHURR

In telling the story of neurosurgery we begin with the Neolithic period of the Stone Age; the earliest trephined skulls belong to this time. The indications for these very early operations are not clear, but it is probable that they were undertaken in order to release demons which were thought to be responsible for epilepsy and headache. Many such skulls have been found in Peru, but the practice seems to have existed in most parts of the inhabited world. It seems, however, that the Egyptians practised very little surgery of the head, but in the earliest medical records provided by the Edwin Smith papyrus, which may date from 2,500 B.C., there were records of 27 head injuries and 6 spinal injuries. From this time until the 19th century A.D., the surgery of the head was almost entirely concerned with the treatment of injuries.

In the 3rd century B.C., the medical world was at the feet of Hippocrates; not only did he advise on the indications for trephining the skull, but he also produced a classification of head injuries which reflects the manner of fighting at that time. His categories consisted of (1) a simple fracture, (2) a contusion of the scalp without a fracture, (3) a depressed fracture, (4) a groove cut in the scalp and skull by a weapon, and (5) a fracture on the opposite side of the skull to the blow. The Roman author Celsus not only advised trephining in the treatment of head injuries, but also recommended the removal of depressed fragments of bone, and taught that the skull should be trephined if a middle meningeal haemorrhage was suspected even in the absence of a fracture. The teaching of Galen, who lived in the 2nd century A.D., dominated medicine until the time of Harvey. Although he perpetuated the teachings of his forebears he added little to the art of neurosurgery. His writings mention an operation on the spinal cord, but give no details of it. During the Middle Ages surgery was advanced by several famous military doctors, but their contributions to the treatment of head injuries were slight. The crown trephine gradually replaced the auger-like trepan, but even this was not a new invention, for it had been designed by the Romans in a form which is practically identical with that which is used today.

With the turn of the 18th century we come to the period in which surgery matured, and within the space of a 100 years underwent a complete metamorphosis. The discoveries of ether in 1846, of chloroform in 1848, and of antiseptics in 1867, were landmarks leading to the era in which modern surgery was to develop. At this time John Abernethy described a simple procedure which became an essential part of neurosurgical technique, the use of the fingers to compress the scalp during incision. In 1864 the first attempts to suture

nerves were made in France, and also in the treatment of wounds in the American Civil War.

Until neurology, or more particularly, neurophysiology, had developed sufficiently far to allow the localisation of function within the brain, nobody could be expected to open the skull except for the treatment of the results of trauma and infection. This step came in 1870, when Fritsch and Hitzig reported their work on experimental cerebral localisation, Broca having previously described the speech area known by his name. It provided the stimulus that led to the classical studies of Ferrier, Gowers and Hughlings Jackson in this country. They were the men on whom the birth of modern neurosurgery depended. In 1879, Macewen removed a tumour involving the meninges which he diagnosed by virtue of an external mass. In May, 1884, the removal of a frontal tumour was reported in the *Lancet* by Durante, and in November of the same year at the Maida Vale Hospital, Sir Rickman Godlee removed a tumour which had been diagnosed on neurological signs. The first spinal tumour to be removed as a result of a neurological diagnosis was operated upon in June, 1887, when an encapsulated extra-medullary lesion was excised by Sir Victor Horsley from a patient under the care of Gowers.

With the mention of the name of Horsley we come to the era of modern neurosurgery. In calling Sir Victor Horsley the "father" of neurosurgery we cannot do better than read the opinion of Harvey Cushing, the great American neurosurgeon, who was to become a second "father". Speaking to the American Neurological Association in 1923, he said, "In January of 1886 the Neurological Society of London (now the Section of Neurology of the Royal Society of Medicine) had been founded with Hughlings Jackson as its first President, and Horsley, though primarily a surgeon, as one of the original members. So, from the first, he sat with his peers, and when a month later (February 9th, 1886) he was appointed surgeon to the National Hospital for the Paralysed and Epileptic, Queen Square, the birth of modern neurological surgery may properly be assumed to have taken place". Horsley was the first surgeon to devote the greater part of his time to neurological work, and at Queen Square was to be found the first operating theatre devoted entirely to neurosurgery. Horsley was an indefatigable worker and an enthusiast, but above all, he combined the practice of surgery and neurophysiology. In his

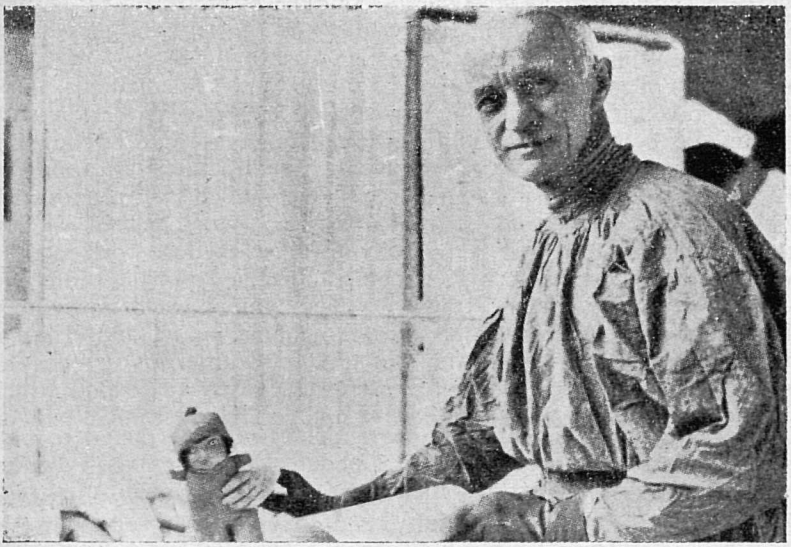
Sir Victor Horsley (1857-1916)

later years his enthusiasm led him into strange paths and was even to some extent responsible for his premature death. Nevertheless, he remains the first of the great pioneers. His inventiveness is perpetuated by the use of the rongeur he devised for cutting bone and the wax with which he controlled the bleeding from it. With Clarke he produced the first stereotactic apparatus, which was the forerunner of the instruments that are in use now. In his day it was usual to treat any patient who was suffering from raised intracranial pressure with iodides for several months in the hope that the disease might be syphilis and would respond to that treatment, so avoiding the necessity of an operation. The result of this was that patients were never operated upon except in states of extreme intracranial tension. Horsley urged that the trial period on iodide treatment should not exceed six weeks, but his teaching was not adopted until the 20th century had arrived. He also advocated the radical excision of infiltrating brain tumours and advised that the excision should extend into apparently normal brain surrounding the growth.

At the end of the 19th century several important techniques were to be developed. Corning described lumbar puncture in 1885, and in 1889 Gardner reported the use of an osteoplastic flap. This widened the opportunities for exploration of the brain. Until then it had been necessary to make a trephine hole and enlarge this by the removal of bone, which left a troublesome defect in the skull. The cutting of the bone flap was made much simpler by the use of a chain saw, and then the Gigli saw, which was applied to this purpose in 1897. In 1886 the development of ophthalmoscopy allowed the association between papilloedema and raised intracranial pressure to be appreciated. When this was known, Horsley found that papilloedema could be reduced and blindness might be avoided if the tension of the brain was relieved; he evolved the subtemporal and posterior fossa decompressions for this purpose.

In spite of the appalling difficulties of operating on the brain under the anaesthesia of the day, the only means of haemostasis being direct pressure, and the use of muscle grafts which he had invented, Horsley not only described operations for the removal of tumours, but also the transdural technique for dividing the sensory root of the trigeminal nerve. This he did in 1891. In 1896 Krause advocated ganglionectomy for tic douloureux. Peripheral neurectomy had been performed for trigeminal neuralgia long before this, and Wagner described no less than 135 cases in 1869. However, the results were not permanent, and the search for a more satisfactory treatment continued into the next century. It was in 1901 that Frazier described the extradural approach to the sensory root, which has become the classical technique. He was also the first to spare the ophthalmic components and the motor root when dividing the pre-ganglionic fibres. Alcohol came to be used for injection of the divisions of the trigeminal nerve at about the same time.

The first 10 years of the 20th century brought little in the way of advance. They were the years in which Harvey Cushing was training



Harvey Cushing (1869-1939)

as a surgeon and visiting Europe. At this time he worked with Sherrington and visited Victor Horsley in London. There was no single point at which Cushing entered the field of neurosurgery. His interest in neurophysiology developed into a desire to apply the new knowledge in this field to the identification of clinical abnormalities and their treatment. This work started at the Johns Hopkins Hospital in Baltimore, and developed to its maturity in the Chair of Surgery at Harvard University, which he held at the Peter Bent Brigham Hospital in Boston. Cushing's insistence on careful wound closure was a simple, early, and far-reaching contribution. By the prevention of meningitis and herniation of the brain as a result of this, he was able to reduce his mortality and increase his opportunities. His monograph on the pituitary gland, published in 1912, was one of his most famous contributions. In this, for the first time, there was a clear statement of the pathology of chromophobe and eosinophilic adenomas, and an understanding of hypopituitarism and acromegaly. The frontal approach to the pituitary, which had been used by Horsley, carried a high mortality at that time. This led to a search for other routes by which to approach the gland. Hirsch published his transnasal approach in 1910, and a modification of this was adopted by Cushing. In later years this was supplanted by the transfrontal route, which is still employed. In recent years, however, the trans-sphenoidal approach has once more come into its own as a means of carrying out hypophysectomy for carcinoma. In 1911, Cushing introduced his silver clips as a means of controlling arterial bleeding within the head, and in the same year Paul Martin performed cordotomy for the first time.

War always produces advances in surgical technique, and during

the First World War we find the introduction of Novocain for cranial operations. This was first employed by de Martel, who also introduced the sitting position for posterior fossa exploration. With the uncertainty of ether anaesthesia without endotracheal methods, there was a grave risk of a sudden increase of intracranial tension with swelling of the brain that could easily be fatal, as a result of coughing or straining, or even vomiting, during the anaesthetic. The ability to use local anaesthesia made neurosurgery a very much safer proposition, and operating was made easier by the use of a constant suction apparatus. Cushing was responsible for insisting on the need to remove foreign bodies such as clothing and bone from the brain and to carry out debridement of these wounds. Queckenstedt introduced his test of the patency of the spinal arachnoid space, and cisternal puncture was also used for the first time. Walter Dandy, who was neurosurgeon to the Johns Hopkins Hospital, used air to outline the ventricular system in 1918, and later employed the alternative method of lumbar air encephalography.

In the decade following the war, neurosurgery began to consolidate its position as a specialty, and surgeons all over the world went to Boston to be trained by Cushing. Others sought out the few men who practised neurosurgery at that time, and learnt from them, so that by the thirties we find neurosurgical centres had appeared all over the world. The first purely neurosurgical society was founded by Cushing in 1920.

Shortly after the introduction of air encephalography Lipiodol myelography was described, and in the same year intrathecal alcohol was used for the control of intractable pain. Bleeding continued to be a hazard, and another advance of great importance took place when Cushing and Bovie used electrocoagulation for haemostasis in 1926. In that year Bailey and Cushing classified the gliomas. Neuroradiology took another big step forward in 1927 when Moniz reported the first angiograms which were then somewhat hazardous, and carried out by open operation. At this time intracranial sections of the glosso-pharyngeal nerve for neuralgia and of the acoustic nerve for Ménière's disease were first employed. Acoustic neurinomas were now occasionally totally removed.

The 1930's saw the foundation of the Society of British Neurological Surgeons, and the extent of development of neurosurgery can be judged by the fact that Cushing published his monograph on 2,000 intracranial tumours, with the amazingly low operative mortality of 11.9%.

Naffziger introduced his transcranial approach for orbital decompression in 1931, and in 1935 Moniz introduced bifrontal leucotomy. This operation, together with cerebral angiography, was to gain him the Nobel Prize. The operation was modified in the United States and after the introduction of the technique known as the "standard leucotomy" by Freeman and Watts in 1942, it was performed on large

numbers of patients all over the world. The undesirable sequelae of this operation led to further modifications which have been added at frequent intervals.

During the Second World War the most helpful advances in neurosurgery were contributed from outside the specialty. These included the introduction of blood transfusion on a safe and universal scale, and the arrival of chemotherapy and antibiotics. Mixter and Barr clearly established the connection between sciatica and prolapsed intervertebral disc in 1940, although Goldthwait had pointed out the relationship as long ago as 1911. Haemostasis was still a problem, and further efforts to help the situation led to the use of fibrin foam in 1944, and gelatine foam in the following year. In 1948, Spiegel and Wycis modified the Horsley-Clarke stereotactic apparatus in order to make lesions in the thalamus for the treatment of mental disorder. Since then stereotactic methods have become part of neurosurgery, and particularly in relation to treatment of the dyskinesias. Operations for Parkinsonism had been carried out for many years and were directed to surgical division of almost every part of the pathway from the motor cortex to the spinal nerve roots. In 1952 attention became focused on the globus pallidus and has since moved to the thalamus.

It is difficult to comment on the advances which have taken place since 1950, but it is clear that the introduction of controlled respiration is one which is likely to remain. The use of urea, mannitol, and the continuing search for other agents which will reduce intracranial tension has provided powerful tools which can, however, easily be misused. Hypothermia came in with a flourish and was soon found to carry hazards of its own. As a result of experience, both hypothermia and induced vascular hypotension are more or less reserved for the treatment of arterial and arteriovenous abnormalities. It must be remembered, however, that some of the newer anaesthetic agents have a hypotensive effect.

This has been a story of the evolution of a branch of surgery which in its most primitive form can be said to be among the earliest. There are still some people who remember Victor Horsley and there are many more who remember the first generation of specialist neurosurgeons. There are few left of this first generation, but those who follow look to them with respect and gratitude for an example which will stand as the pattern to be emulated.

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Medicine in Fiji

By A. FAREED

The British Colony in Fiji is an archipelago in which about a hundred islands are inhabited by over 400,000 people of various races. A little more than half of the population are Indians, and the rest Fijians, Europeans and Chinese. The emergence of these islands from the tranquil back-waters of isolation has been accentuated in the past decade through the expansion of air and sea services across the Pacific. Islands that were once but names spattered over the expanse of this Great Ocean, now emerge as real places, as reefs, islands, mountains, villages and cities.

The dominant elements of Fijian life and characters are Polynesian and Melanesian which, of course, is a reflection of their anthropology. The ideology and system of belief is an ancient one, somewhat coinciding with that of the manor system of England. The Fijian way of life is self-sufficient, friendly, honest and sympathetic. Socially, Fiji is in a period of evolution. The tribal structure is rapidly changing among the more remote tribes, though power still exists in a Chief or a Council of notables. One would find grades of Chieftainship, which differed from district to district according to their constitutional rights. But now the British-designed Parliament operating in Fiji has made Chieftainship almost impractical and out of date.

Owing to a political and social lassitude the Fijians are somewhat conservative and stable in their own fashionable ways. However, life for them has always been easy, there has never been any need for competition, and even the poorest Fijian is born to the sun and beauty and a life that yields reasonable comfort without a struggle. Nowhere else is the philosophy of wine, women and song more enthusiastically and gracefully followed. Fijians find it difficult to understand the merits of work and ambition, of planning ahead, and the only time that matters to them is the present.

There is plenty to do in Fiji, particularly for those who have interests in fishing and farming. The women are responsible for domestic duties. Their staple food consists mainly of rice, tapioca, fish, boiled vegetables and freshly picked fruits.

Since the introduction of missionaries to the islands paganism has ceased, though illiteracy still exists due to the lack of schools and education. However, indication has recently been found of a growing desire among the inhabitants to improve the hygiene of their own community, and except in some cases, local healers are progressively losing their influence. These local healers have their ancient system of healing the sick; such powers as the sacrifice of one life to save another, witchcraft, treatment using different herbs, bulbs and roots, and even certain marine plants and animals are used. The sacred drink, Kava, referred to by the English as "Muddy Water", is thrown in the sea to keep the evil spirits away. Since Christianity spread

over the islands and opened hospitals and clinics, this convinced the people that Medical Science is the only way of healing the sick.

The Medical School

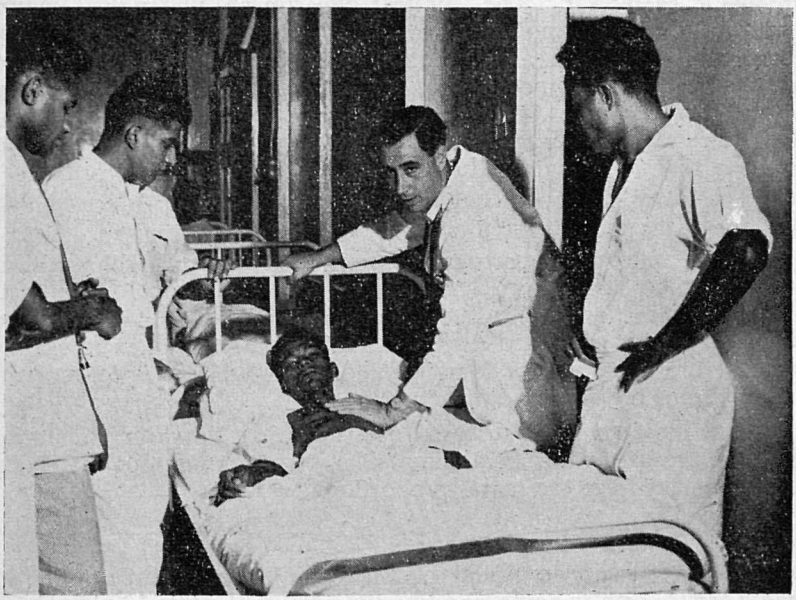
Fiji Medical School

The Medical training began in 1888 and at the beginning students were trained as public vaccinators. Later the course of their study was extended and eventually led to the establishment of a New Medical School.

By 1926, medical studies were well on the way and students from other Pacific territories became interested and started pouring in to study. The course is limited to five years; students in their first two years of study take Anatomy, Physiology and Biochemistry as their pre-clinical subjects and then they are allowed to follow instruction in clinical subjects (i.e., Medicine, Pathology, Surgery and Midwifery) for three years, subsequently passing out as Assistant Medical Practitioners (A.M.P.'s). The Medical Department is also responsible for auxiliary courses for X-ray Technicians, Laboratory Technicians, Pharmacists, Dieticians and Health Inspectors.

In conjunction with the Medical School is a Dental School; in this case the course lasts for four years, the students eventually passing out as Dental Officers.

The locally trained doctors are not allowed to have their own



practice unless they travel abroad to Australia, New Zealand or Britain and take Medical Degrees. They are, in certain instances, in charge of rural hospitals and there is much emphasis laid upon treating the whole patient rather than the disease.

When the Medical School first started it went under the name of the Central Medical School, then situated at the War Memorial Hospital. Since 1954 it has been known as the "Fiji Medical School" and its present buildings are at Tamuvua, several miles from the City Centre of Suva. In addition to set courses, post-graduate courses are held for graduates either of Fiji or from outside territories, in Public Health and for Diplomas as Assistant Medical Officers (A.M.O.'s).

Divisional Hospitals

Departmental Administration is decentralised; the Colony is divided into four Medical Divisions and each is controlled by a Divisional Medical Officer who is not only responsible for development, but also controls the work of the nursing staff, health inspectors and locally trained medical practitioners. Also there are three Specialised Institutions, with several rural hospitals and dispensaries.

The Colonial War Memorial Hospital is in Suva almost in the heart of the city; this was built as a Memorial to the First World War. It is a General Hospital with over 300 beds. The specialist staff consists of a physician, surgeon, obstetrician and gynaecologist, anaesthetist, ophthalmologist, radiologist and pathologist. The hospital also functions as a training centre for Medical and Nursing Students and as a divisional hospital for the Central Division. A very high standard of work is maintained and significant improvements are made each year. The surgical department undertakes major operative measures and the department is very modern with every conceivable instrument and apparatus at the Staff's disposal. The two major theatres take most cases, the total number of patients for operation exceeding 4,000 per year. The maternity and out-patient departments are rather unsatisfactory but all efforts are being made to improve their working conditions and facilities.

The wards are run as in Britain, except that medical treatment is paid for by the patient.

The Pathology Department is controlled by a Pathologist and supplies a 24-hour service; a blood transfusion department has proved a useful acquisition and has considerably facilitated this work of the laboratory. It is estimated that over 70,000 routine diagnostic examinations are carried out annually, and about 250 post-mortem examinations are carried out each year.

The most common diseases dealt with at the War Memorial Hospital are gastro-intestinal complaints, of which infantile diarrhoea and dysentery form the major proportion.

Fiji Leprosy Hospital

The reef-encircled island of Makogai is about three miles in length from north to south and two miles across. Volcanic in origin,

it consists of a number of peaks. Since 1911 the level areas have been used for the establishment and maintenance of a hospital purely devoted to the treatment of leprosy, with 622 beds. The Medical and Nursing Staff consists of a Medical Superintendent with Missionary Sisters as nurses. In addition to the general nursing, sisters visit the villages daily for inspection and dressing of individual cases. The sisters also train a number of patients as dressers in the villages and the hospital. They also carry out dispensing and laboratory work, give anaesthetics and assist at operations; they run the X-ray and physiotherapy department, and supervise occupational therapy and various domestic duties. Their duties are, in fact, all-embracing and a large proportion of any success attained at the hospital is undoubtedly due to their efficiency, versatility and devotion.

During the 53 years of its existence, 4,500 have been registered in the Fiji Leprosy Hospital, about two thousand have been discharged and about six hundred have been repatriated to their homes. There have been just over a thousand deaths.

The standard treatment is with 4—4′ diamine-diphenyl sulphone (D.D.S.); though trials have been made on more modern drugs, it has been found that this is by far the most effective.

Tamuvua Tuberculosis Hospital

This is the Central Hospital for the Colony, with 365 beds. Domiciliary treatment is also given at rural hospitals.

The B.C.G. Vaccination Campaign continues to make progress and is followed by X-ray Units to investigate the Heaf-positive reactors. The treatment is mainly based on isolation and rest.

The Suva Mental Hospital

This institution, with 250 beds, has made good progress during the last few years and now many modern facilities are at hand for the treatment of the most common disorders, e.g., schizophenia, manic depression, senility and epilepsy.

At present, research is being carried out in various fields of medicine, led by Dr. Gurd.

Some worth mentioning are:—

(a) Use of Griseofulvin in treatment of Ringworm.
(b) Investigation into the carriage of virus by anthropoids.
(c) Trials carried out on Diphenylthiourea in combination with Diamino-diphenyl-Sulphone.

CORRESPONDENCE

Far Back

SIR, As one gets older, the tendency is to look back on one's life. I thought perhaps it would be interesting to our younger colleagues, to recall what happened at the outbreak of the first war in 1914, to the students at Guy's Hospital. The majority of medical and dental students joined up in the Forces, some in the Navy, some in the Army, and some in the R.F.C. A wise order was issued, I believe, by the B.M.A., after a few months, recalling medical students back to their studies at Hospital, as they could foresee a likely shortage of doctors in the future. Dental students were not so important and they carried on to the end. Many never returned. In 1919, when some of us were demobbed and some convalescing from wounds and illness, the dental laboratories were a curious sight, quite a number returning to their studies in uniform; one saw the Navy, Army and R.A.F. well represented. Gradually things returned to normal and examinations were taken and failed or passed. It was curious how quickly we all fell back into the routine of hospital life and study, after four years away in quite a different environment. In 1919 the Dental Students' Society held the first annual dinner after the war at the Connaught Rooms in Great Queen Street, and the chair was taken by that wonderful after-dinner speaker, Mr. Montague Hopson, and his In Memoriam speech was unforgettable. Many men turned up in uniform as we could not afford dress clothes. It was wonderful to be back again.

What happened in the second World War of 1939? Quite a large number of these men again volunteered to serve in the Forces, now, of course, in the Dental Branches of all three Services. Some did so at great financial loss.

The years pass very quickly and a lot of these men have retired, and some not liking retirement, again serve their country by working as civilian dental practitioners in the Army and R.A.F.

War is futile, childish, cruel, causing misery and suffering to countless thousands. Is it impossible for the nations of the world to get together and abolish war? When will they ever learn?

Yours, etc.,

Charnwood Cottage,
Charlton,
Shaftesbury,
Dorset.

C. S. NEAME.

Even Further Back

SIR, Was it once the custom for Guy's residents to wear " traditional worked slippers " for their evening ward-rounds? Did nurses address patients by their bed-numbers? Is the following true about Sir Samuel Wilks? " . . . One coat-tail flew out in the wind, the other tail was weighted with its usual consignment of oranges, always ready to comfort the last moment of a patient who had borne himself with becoming fortitude during his illness." Was there a cat which " regularly marched into the operating-theatre, and looked on at the performance, from the top of the instrument-press with as keen an interest as any of the surgeons"? Did people refer to Guy's as a house of pain?

These are some of the questions which occurred to me as I read Frederic Vynon's " In a House of Pain." This novel was recently given to me by Mrs. E. M. A. Hope, daughter of the late Dr. M. Aston Key.

Inside the front cover, in Dr. Aston Key's handwriting, is the following statement: "This book was written by a Guy's man and published in 1893 or 1894 while I was a dresser. The scene of the fire is entirely imaginary and not historic, but the characters as indicated in the key are all drawn to life: Mr. Jamison *for* Mr. Jacobson, Penelope *for* Phyllis, Mrs. Kane *for* Mrs. Keogh alias 'Aunty', Mr. Burnham *for* Mr. Durham. Digges (p. 203) really existed, hence: Matthew ward *for* Luke, Dr. Figg-Brown *for* Hale-White, Dr. Dilkes *for* Dr. Wilks."

Yours, etc.,

The York Clinic,
Guy's Hospital.

MARY RESTELL.

REVIEWS

TEXTBOOK OF SURGERY.

Edited by D. A. MacFarlane and L. P. Thomas. E. & S. Livingstone Ltd. 1964. Pp. 759, Figs. 227. *Price* 60*s*.

Textbooks of surgery for undergraduates are either unashamed condensations, with the maximum amount of information packed into the minimum amount of space, or larger treatises in which the authors are faced with the task of presenting an ever increasing volume of surgical knowledge in a readable form. With the latter it is difficult to avoid the death-blow resulting from the production of a volume so unwieldy and so expensive that those few students who may be able to find time to read it cannot afford it.

This new textbook of surgery is an in-between. The authors have set out to provide surgical information in a concise and didactic form. To this end they have gathered together seven contributors practised in undergraduate teaching and have adapted the composition and style of each contributor to produce a homogeneous presentation. They have succeeded in so far as any book of this nature can succeed. The dead wood of surgery has been ruthlessly pruned and the remainder has been covered with an economy of words which makes for easy reading. Throughout the book there is evidence of awareness of new trends in surgical thought, but only the most acceptable changes are documented.

One of the difficulties about writing a short text is that it is necessary to classify the material in such a way that reiteration does not occur. This usually results in a series of descriptions of " disease-situations", implicit in which is acceptance that the diagnosis has been established. However, the student during his training is often more concerned with " patient-situations". Much of his effort at this stage should be directed towards analysis of the latter, i.e. surgical diagnosis. This book gives limited help in this respect. In the chapter on the biliary tract a section on the evaluation of jaundice would have been valuable. In fact the subject becomes fragmented because it is dispersed throughout the chapter under disease headings. The impact is lost and the student seeking knowledge on the significance of this symptom will not be left with more than a superficial knowledge. Similar considerations apply to leading symptoms. The significance of abdominal pain, urinary tract symptoms, leg ischaenia are not treated per se. This book is not sufficiently " patient-orientated " for the junior student. For the senior student it may be more valuable—it depends on how he acquires his knowledge. In the crammer type of book it is necessary to remember as much as possible, and for this purpose the material is often presented in an easily memorised form. In the larger textbook perhaps only ten per cent. of the facts will be retained by the reader, but perusal of the wider text will almost certainly give him more "feeling" for the subject. This book caters for the middle of the road man. To get the best out of it he will have to remember most of what he reads. It may well be that the nuances of surgery are no part of the undergraduate learning, and if this is so, the student who uses this book as a basis from which to expand his clinical knowledge will know that he is using an up-to-date cobweb-free text. It is not comprehensive enough for postgraduates.

The book is illustrated throughout by line diagrams. Many of these make their points with a refreshing clarity but the paucity of detail makes some of the illustrations valueless. Figures 44, 46, 56B and 120 are examples of the latter. The line diagrams lend themselves well to the orthopaedic illustrations. This is one of the best chapters in the book.

The authors are to be congratulated on producing a new volume in a field which many consider to be already overcrowded. The freshness of the text, the clarity of expression and the reasonable size and price may have a wide appeal, but as a personal preference I would be happier with one of the bigger standard textbooks, many of which are remarkably comprehensive and give excellent value for their money.

F. G. Ellis.

PROGRESS IN CLINICAL OBSTETRICS AND GYNAECOLOGY.
By T. L. T. Lewis, 2nd Edition, Churchill.

This is the second edition of the book after a gap of eight years. It is more than a new edition in that, although much of the old subject matter is retained, the whole book has been extensively revised and many new chapters added. This has resulted in an increase in size, although some sections in which it is claimed no progress has been made since the last edition, have been deleted—the two editions are therefore more complementary than supplementary.

The subject matter is well chosen and the more interesting aspects of the speciality are represented giving a broad spectrum of current thought. The literature on each topic is reviewed and, where applicable, a guarded opinion is given; dogma is missing. New chapters include those on the Ventouse, Vaginal Smears to Assess Hormone Secretions, Oral Contraceptives, Chromosomes Anomalies and their Clinical Manifestation—while Placental Insufficiency, Cytology and Intra-epithelial Carcinoma of the Cervix and Trophoblastic Tumours, in particular, are given more prominence.

The bibliography is full and the index adequate. There are a few printing errors, but the book is well produced and easy to read.

The main audience of this book is the M.R.C.O.G. candidate—he should be grateful to the author in covering such a large portion of the syllabus in a comprehensive and authoritative manner; his time spent in reading, re-reading and learning will be amply rewarded. The book is not intended nor is it recommended for the undergraduate except as an occasional book of reference for some aspect of the speciality which he finds particularly stimulating. It deserves the popularity achieved by its predecessor.

L. RANKIN.

NOTICES

Theatre Club

The two plays being presented at Guy's in a few weeks' time share one quality, that both of them would be summarised as " comedy", but there the resemblance ends. James Saunders is a new discovery in English stage-writing, and *Next Time I'll Sing to You* is as provocative and tantalising as it is entertaining; it will be presented in the Physiology Theatre from 30th November to 4th December. *The Importance of Being Earnest,* which can be seen between the 7th and 11th December, is a well-loved product of Oscar Wilde's polished wit and lively observation of Victorian family life. We hope that all our patrons will support us as loyally as in the past, and that many will enjoy both productions. Free tickets will be available outside Smith's bookshop.

Christian Union

Meetings are held in the Upper Lounge of the Students' Club, on Mondays at 5.30 p.m., and also on Sundays. The Annual General Meeting will take place on Wednesday, 9th December, at 9.0 p.m. A Carol Service is planned for December 15th. Full details of the activities may be obtained from the Secretary, DAVID VERNON.

Art Society

On Thursday, 19th November, there will be a Film Show, at 5.30 p.m., in the Anatomy Theatre. Professor Nicolaus Pevsner will lecture to the Society at 5.30 p.m. on Monday, 7th December, in the Anatomy Theatre. The Professor is the author of numerous texts on Art and Architecture, and is Professor of the History of Art at the University of London. His subject will be " Victorian Architecture in London." All are welcome.

GUY'S HOUSE

The reconstruction of Guy's House is now almost complete, and the building is part occupied. The remainder will come into use during the week-end of November 21st/22nd, and following this a number of temporary arrangements, which have been operated for the past three years, will cease, and the following permanent arrangements will come into operation:

Entrance to the Hospital. The Front Lodge will return to the north end of the Colonnade at 3.0 p.m. on Saturday, 21st November, 1964. From that time the main entrance of the Hospital for pedestrians will be through the Forecourt (front quadrangle) and via the Colonnade. The entrance to the Hospital grounds for ambulances and other vehicles will be from St. Thomas Street through Great Maze Pond. The present entrance for vehicles at the south end of Great Maze Pond will be closed, as will that from Weston Street.

Administrative Offices. The Superintendent's Office and Matron's Office will re-open on the ground floor of Guy's House on Monday, 23rd November. The entrances will be from the inner west quadrangle in the case of the Superintendent's Office and Matron's Office, and from the inner east quadrangle as well as from the Colonnade in the case of the Counting House. The Counting House will move back to Guy's House to open there at 9 a.m. on Monday, 16th November.

Car Parking. All present parking permits (G. windscreen labels) will cease to be effective from 3.0 p.m. on Saturday, 21st November, as will the special gold coloured permits issued for the London Bridge car park. Applications for new permits should be made to the Superintendent's Office as soon as possible, as parking in the Hospital grounds will not be allowed except on production of a permit issued by the Superintendent's office. The front quadrangle will be reserved for the use of consultant staff only. That part of Great Maze Pond within the Hospital grounds will be reserved for visitors to the Hospital. The parking spaces alongside and in front of New Guy's House will be reserved for registrars, house officers, and senior nursing staff who have obtained permits to park. It is regretted that it will not be possible to provide parking facilities for students, other nursing staff and most non-medical staff.

G.P.O. Facilities. There will be a G.P.O. letter box and postage stamp machines at the north end of the Colonnade. There will be public telephone kiosks at the south end of the Colonnade, and in the lobby of the sandwich bar.

Sandwich Bar. The Guy's Shop opposite the Dental Department will be closed on Wednesday, 18th November, since the shop will be replaced by the sandwich bar in the basement of Guy's House. The entrance to the sandwich bar will be by the steps opposite the students' hostel or from the subway system. The sandwich bar will be open from Monday, 23rd November, as follows:

9.30 a.m.—4.45 p.m. Mondays to Fridays.
9.30 a.m.—11.30 a.m. Saturdays.

The use of the sandwich bar will be restricted to members of the Hospital staff, and physiotherapy and radiography students. Medical and dental students will not be admitted as the cafeteria in the east wing of Guy's House is for their use.

It should be noted that:

1. Users of the sandwich bar will be permitted to bring their own food for consumption on the premises.
2. With the provision of the sandwich bar the practice of preparing snack meals in various parts of the Hospital must be discontinued.
3. The buffets in the Out-Patient Department and the Casualty Department will no longer serve members of the Hospital staff or students. These facilities are intended for the use of patients.

If the sandwich bar is fully supported, it may be possible at a later date to extend its services and the hours of opening.

Security Officer. The Security Officer will have his office in the basement of the Out-Patient Department. The telephone extension number will remain 301.

(Extract from Hospital Circular, dated November 5th).

SPORT

RUGBY FOOTBALL

From this season of rearguard actions, of disappointments, of much spirit, but less skill, of big hearts, but statistically less achievement, suddenly new life appears.

The match against Old Haberdashers exposed all the team's usual faults—forwards, good in loose and line-out, though not so effective in the tight, and outsides, moderate in defence, sometimes diabolical in attack with two strong, fast and effective runners on the wings being completely neglected—and underlined the belated and spasmodic dominance that the side can, but notably will not, imprint on a whole match. By the time Guy's awoke, the opposition were 9—0 in the lead, and all those brilliant last efforts left the score 11—14.

Against Old Blues, everything went well from the start, and Guy's took up their task with a terrier-like grip that they never released. Eleven tries brought the biggest score for many a year, and if the kickers hadn't had an off-day—who knows? Much was learned—that those two wings are worth cultivating (five tries between them); that passing is more effective than kicking (those new rules were introduced for some good reason), and that hard, productive forward play is worth all the effort when outsides make constructive use of the ball; and last, but by no means least, that spirit, fire, hwyl, what-you-will, sustained for eighty minutes produces an end-result that makes the team, the club, the supporters and the landlord of the Miller all very happy. This need not be a flash in the pan, but should bring confidence and ambition to a team that needs to respect itself as much as it does some of its distant predecessors.

HOCKEY

In beating Kingston Grammar School, the first team provided a most encouraging performance, and showed a determined fighting spirit which has been lacking this season. The value of intelligent team play was seen, as it was no mean feat to defeat one of the leading hockey schools in the country.

The second team were one player short as a result of a wife's labour pains, and played well in losing 0—2 to the school. Congratulations to K. Laing, too! With a number of able reserves, the third team did well to draw with the school side, and were unlucky not to win. The fourth team were badly let down by absent players and went down 0—4 to a Surbiton side.

Two poor Wednesday games have been won against St. George's Hospital and Royal Naval College, Greenwich. It is a pity the team cannot exert itself to go a little harder in these games, which should be good practice.

The first round of the senior cup will be played at H.O.P. on Wednesday, 18th November. This is against the Middlesex, whom it took 160 minutes to beat last year. They are out to revenge this defeat, and it will require a very determined effort to beat them. All support will be most welcome.

Reports and Results

HOCKEY

GUY'S v. KINGSTON GRAMMAR SCHOOL

Saturday, 31st October.

Result: won 3—2

In winning this game Guy's showed the drive and spirit that has been missing recently, and the result was a tough exciting game of hockey, played at a good pace and reasonable standard.

Hirst was again absent, continuing his county career; and his deputy, Rear, gave a good display, and is to be congratulated on deservedly being chosen to deputise for Hirst in the U.H. side.

From the start the whole team showed considerable enthusiasm, with the forwards all tackling back determinedly and then moving the ball well. The defence, however, again took a long time to settle, and play moved rapidly from end to end of the field. Guy's opened the scoring when Loader netted the first short corner with his well-known "wobbly one". Just before half-time Bennett, whose covering had been excellent, was unlucky when a fine reverse stick effort was cleared off the line.

Guy's, uncharacteristically, started the second half well, and soon Appleby scored, following some good right wing work by Carruthers, who shortly afterwards was desperately unlucky when he hit the post, for the second week running, after the best movement of the season.

The school's spirits picked up when they scored from a well-placed long corner which the Guy's captain failed to cover adequately. Dangerous attacks followed, but Rear was unlucky when deflections from two Guy's sticks gave an opposing forward a simple chance.

The Hospital team looked distinctly tired, and the play became more scrappy, but Appleby managed to score a good breakaway goal following a defensive error. For the final few minutes the Guy's defence made it obvious they were determined there would be no further score.

This was the sort of performance the team needed to show themselves that the skill and spirit is there and it was particularly good to see inside forwards and half backs covering so much ground. Perhaps not the strongest side the school has produced; but certainly a very encouraging effort by the Hospital.

K. E. HAYNES

Team: S. Rear, D. Loader, K. Haynes (Capt.), J. Crafts, C. Brooks, N. Turfitt, R. Carruthers, S. Cripps, M. Appleby, P. Bennett, P. Liddiard.

RUGBY FOOTBALL

GUY'S v. OLD HABERDASHERS

At H.O.P. 31st October, 1964

Result: lost 11—14

The Guy's team, obviously feeling the effects of their lay-off for nearly two weeks owing to an outbreak of "scrum-pox", narrowly lost to Old Haberdashers by a goal and two tries to a goal, a penalty goal and two tries.

The "team epidemic" has almost run its course, but P. K. Peace was still unable to play and his place was taken by M. Cockburn, a fresher. Also, R. Brown returned to his position at No. 8.

Although the sky was rather overcast, the pitch was in perfect condition for open play. However, in the opening minutes of the game Guy's were untidy in their play, line-outs lacked co-ordination and tackling lacked venom. Consequently, in the 7th minute Haberdashers made a good break on the blindside and were permitted to score an unconverted try through sloppy tackling. After this setback Guy's definitely tidied up their play and the pack began to get better possession in the line-out and loose. Many good quick heels from the loose were spoilt by the Guy's centres running across the field and crowding their wingers. All the same, Guy's came very near to scoring on several occasions with most determined running by Wright and Kerner, who on one occasion managed to cross the opposition's line but hit the corner flag. In fact, Guy's made attack after attack but just could not finish off well enough to score. About 10 minutes before half-time Guy's were penalised for handling in the scrum and, unfortunately, Fuller was on target to make it 0—6.

After the change over the spectators expected Guy's to carry on where they left off in the previous half, but they seemed to loose their hold on the possession for a time. Haberdashers took the initiative by kicking their way well into the Guy's half, and by quick possession from the loose, allowed their centres to run through for a try that was duly converted. Now the score was 0—11, and with 25 minutes left for play Guy's were obviously in a poor position. Guy's pack were not getting much of the loose ball now although Kingdon and Cockburn continued to get more than their share of possession in the line-out, the latter playing a fine game in his debut for the Hospital. But it was Morris who kept Guy's in the game with some superb touch kicking, although his fielding was not quite up to his usual standard. Soon a heel from the loose sent the ball out to Ross, on the left wing inside the Guy's half, and after a simply splendid run of 60 yards, in which he had to shake off four opponents, he scored about halfway out. Rowlands failed to convert. Immediately Guy's sprang to life and kept the pressure up so that their next score came soon. In a set-scrum, five yards from Haberdashers' line, the Guy's pack at last showed that they could push their opponents backwards, and enabled Bevan to score off the open-side.

Soon after this Haberdashers gained possession against the head in the tight and sent their admirable winger away on the blindside. It was so disappointing to see no less than three Guy's men slide off this apparently immortal figure speeding down the touch-line to give Haberdashers another three points.

With 10 minutes left for play, Wright, who had had an excellent game, injured his right shoulder and had to move out to the wing, changing with Kerner. Nevertheless, Guy's stayed on the attack and several splendid moves were seen involving forwards and threequarters, but each time the vital pass seemed to go astray. A quick heel from a set-scrum resulted in Bevan scoring on the blindside. Morris managed to convert, to bring the score to 11—14. The closing minutes were very exciting but Guy's could not make up for the mistakes made in the first threequarters of the game.

PETER PEACE

Team: A. M. Morris; R. C. Kerner, C. J. Wright, A. J. Edgar, J. M. Ross, B. Rowlands; D. Bevan, J. E. Davies; P. Ashcroft, R. Stansfield, M. Cockburn, A. J. Kingdon, H. Sharp, R. Brown, I. A. Baker (Capt.).

GUY'S v. OLD BLUES

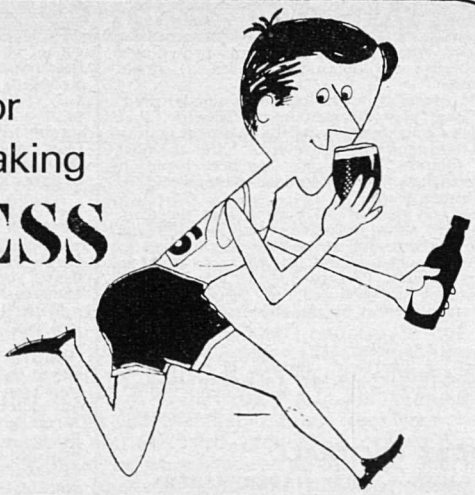
At Fairlop. Saturday, November 7th, 1964

Result: won 41—3

This was a game which was full of excellent constructive moves by Guy's and the team's performance would have silenced even the most vociferous critics. There was some fine attacking rugby and good finishing, and the opposition defence was completely swamped for most of the game. The team left all previous efforts far behind, and had the place-kicking not been so weak, the score would have reached cricketing proportions.

Kerner had a particularly fine game, and the first of his three tries was scored in the corner after some good passing between himself and Allan. Morris converted from the touch-line to make the score 5—0 in as many minutes. Soon after this Edgar ran down the centre and sold a superb dummy to put Ashcroft over between the posts. The conversion failed. A dropped pass by the Old Blues resulted in Bevan dribbling towards the line, and following a loose maul, Rowlands went over the line near the corner flag. Next came a spectacular run by Ross, who stepped out of one tackle to beat five opponents and raced towards the line; unfortunately he failed to pass to Kerner who only had a couple of paces to cover to score, and turned inside into the arms of the full-back. Kerner made light of his opposite number, who was seen flying through the air on more than one occasion and was given rather a rough passage. The nearest the O.B's had come to scoring at this stage was when the right centre penetrated the Guy's defence and was left with only Morris to beat, which he failed to do. Davies and Kerner added further tries, the latter after a breathtaking run of 50 yards to split the Old Blues' defence wide apart. The tries were marred by some very poor place kicking which left much to be desired, first Morris failing and then Edgar. Just before

Dear Doctor
I have been taking
GUINNESS
for seven
days
running



and how much better I feel!

G.E.4030.K

Welcome Gifts

Hanslip Fletcher Etchings (5 views)	each		1/–
Hanslip Fletcher Etchings Framed		...	7/6
Etchings, various	from	...	3/6
Coat of Arms, in colour		...	3/6

Postage and Packing 2/6 extra

HISTORY OF GUY'S

1725–1948

A few copies available

12/6 each including postage

THE MANAGER, GUY'S HOSPITAL GAZETTE, 16, ST. THOMAS ST., S.E.1

half-time the O.B's heeled well from a set-scrum and the centre went over for a try to score the only points for the opposition between the posts; even the efforts of the Guy's place kickers were made to look acceptable when their opposite number also failed with the easy kick to leave the score at 17—3 at half-time.

Following the resumption a push over try infringement resulted in the referee awarding a penalty. Brown was given the now seemingly impossible task of landing points from a place kick, and Baker followed up the missed attempt to score. Brown finally floored the bogey by converting Kerner's third try, ten yards in from touch. Sharp was handling well at this stage and Allan was running straight and true and was unlucky not to score. Further tries came from Rowlands and Davies, of which Brown converted one, and failed marginally with the other.

Ross continued to give the opposition a headache with his powerful running, and Allan managed to bend down and score with two opponents still being dragged after him. The final try was scored by Edgar who outspeeded the defence with a run of 40 yards, and Morris converted to put Guy's into the forties for the first time for a long period. Considering that Guy's were beaten by this side last year this was a splendid effort by the whole team, which gave its supporters good reason for optimism in the Cup games which are to be played in the near future.

NIGEL KNOTT

Team: A. M. Morris; R. C. Kerner, A. J. Allan, A. I. Edgar, J. M. Ross, B. Rowlands; D. Bevan, J. E. Davies; P. Ashcroft, A. Fisher, P. Peace, A. J. Kingdon, H. Sharp, R. Brown, I. A. Baker (Capt.).

"A" XV v. OLD BLUES

At H.O.P. November 7th, 1964

Result: lost 11—13

WATER POLO

The first team have now played three fixtures in the United Hospitals' League, and an assessment of the team's potential can now reasonably be made. Against a weak Bart's team we scored a resounding and necessary victory. The score of 17—2 flatters Bart's more than Guy's. The team was not running smoothly, to say the least, but this constant attacking game can only have helped to reblend last year's successful team. In the second fixture, against a fighting St. George's, the experience of the first game was invaluable. The score of 7—0 to Guy's is not a true indication of their dominance, but it is a fair indication of St. George's close marking and continued determination.

The game of the season, unfortunately, came early this year. St. Mary's and Guy's met when both teams were striving to get into smooth running condition, and it appeared that the team who made the least mistakes would take the laurels.

In actual fact Guy's rose to the occasion, and using a diamond formation outplayed St. Mary's in all departments. The co-ordination and anticipation of the team almost made this victory an easy one. An early touch of complacency was soon stopped by a near miss from St. Mary's. After this lapse Guy's played attractive and safe water polo, and a victory of 4—0 ensued. This was indeed a team effort in which no individual name can be mentioned above the rest of the team.

After three games Guy's lead the league with six points and 27 goals for and two against. If this standard can be maintained it seems highly probable that the league championship will return to the Club.

The third team have played five games—winning three and having a walk-over in the other two. This is an extremely encouraging start for a team of virtual learners. It is even more encouraging when these people can turn out, but a second team can never be fielded from 11 potential players.

First team Results:

Guy's v. St. Bart's. Won 17—2.
Team: Barnes, Bartlett, Jones, Siegle, Valentine.
(Valentine 8, Jones 4, Barnes 3, Bartlett 2.)

Guy's v. St. George's. Won 7—0.
Team: Barnes, Bartlett, Jones, Siegle, Valentine.
(Valentine 4, Jones 2, Barnes 1.)

Guy's v. St. Mary's. Won 4—0.
Team: Barnes, Bartlett, Jones, Siegle, Valentine.
(Valentine 3, Jones 1.)

TABLE TENNIS

For many years the table tennis teams at Guy's were dependent for their support upon the energies and enthusiasm of a small group of players. While many people found table tennis to be a popular pastime and used the facilities of the club, very few seem interested in giving active support by representing the Hospital in matches. Recently, however, interest and enthusiasm has been steadily increasing, not only at Guy's but also at many of the other London Hospitals, even to the extent that an inter-hospital competition is now possible each year. Unfortunately, Guy's has not won this cup yet, although on two occasions we have been close runners-up.

The season ahead promises to be one of the most successful in the history of the club. Active and enthusiastic members are abundant, and three teams have been entered in the University of London League. In addition, some friendly matches are to be played with various departments throughout the Hospital, and any department wishing to challenge the club should contact the fixture secretary. Another new event this year will be a ladder competition, the idea being not only to increase the standard of play but to encourage relatively inexperienced players to practise regularly, with the aim of eventually obtaining a place in one of the teams.

With all these activities in mind the Club eagerly welcomes the opening of the new East Wing, where the new premises promise to be the finest in the University. It is with good reason, therefore, that a most active and enjoyable season is anticipated.

GRAHAM PARFITT, Secretary.

GOLF

Hospitals Cup, Semi-final v. St. Thomas's

at Addington Palace, 30th September.

Results:—
D. Adams, won 8/7.
B. Bevan-Jones, won 5/3.
M. J. Brummitt, won 1 hole.
V. G. Williams, won 4/3.
P. Mewton, halved.
Guy's won, 4½—½.

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HOSPITAL INFORMATION

HOSPITAL INFORMATION

GUY'S HOSPITAL AND SOUTH EAST METROPOLITAN REGIONAL HOSPITAL BOARD

Applications are invited to fill an established vacancy as **Senior Registrar in Physical Medicine to the Board of Governors of Guy's Hospital and the South East Metropolitan Regional Hospital Board.** The appointment, which will be made jointly by the bodies concerned, will be for the period 22nd January, 1965, until 30th September, 1966, with duties in the first instance in the Bromley, Orpington, and Sevenoaks Groups, and from 1st October, 1965, to 30th September, 1966, at Guy's Hospital. The post, which will be reviewed on 30th September, 1965, is subject to the terms and conditions of service of Hospital Medical and Dental Staff (England and Wales). Application forms are obtainable from, and should be returned to, the Superintendent, Guy's Hospital, London, S.E.1, not later than **27th November, 1964.**

GUY'S HOSPITAL, LONDON, S.E.1.

Applications are invited for the post of **Middle Grade Registrar in the Department of Anaesthetics,** with appointment from 1st January, 1965. Application forms are obtainable from, and should be returned to, the Superintendent, Guy's Hospital, London, S.E.1, not later than **27th November, 1964.**

GUY'S HOSPITAL, LONDON, S.E.1.

The Board of Governors of Guy's Hospital invite applications from registered dental practitioners for the appointment of **Dental Officer to treat In-Patients** (General Dental Practitioner grading) to attend on six sessions per week, with duties commencing as soon as possible. The post will be subject to the Terms and Conditions of Service of Hospital Medical and Dental Staff in the National Health Service. Forms of application are obtainable from, and should be lodged with, the Superintendent, Guy's Hospital, London, S.E.1, not later than **Friday, 27th November, 1964.**

GUY'S HOSPITAL MEDICAL SCHOOL

Applications are invited from medical or science graduates for the post of **Lecturer in the Department of Chemical Pathology,** with duties commencing on 1st January, 1965, or as soon thereafter as possible. Salary in the range of £1,580 to £2,535, according to qualifications and experience, with superannuation. Duties will consist mainly of research and teaching. Application should be made before **1st December,** on a form obtainable from the Dean, Guy's Hospital Medical School, London Bridge, S.E.1.

GUY'S HOSPITAL MEDICAL SCHOOL

Applications are invited for the post of **Junior Lecturer or Lecturer in the Department of Physiology,** with duties commencing as soon as possible. Salary in the range of £1,350 to £1,690 (Junior Lect.), or £1,805 (Lect.), according to qualifications and experience, plus £60 London Allowance with superannuation, and family allowance, if applicable. Applications should be made as soon as possible on a form obtainable from the Dean.

GUY'S HOSPITAL

Almoners

Consequent upon the change in name of the Institute of Almoners to the Institute of Medical Social Workers, in future the Almoner's Department at Guy's will be known as the Department of Medical Social Work, and Almoners will be called Medical Social Workers.

AWARDS

THE SCHOOL OF NURSING

MEDALS AND PRIZES FOR THE YEAR 1963-1964

The Governors' Prize

EXAMINATION IN PHARMACOLOGY

1st Prize

October 1963	Nurse Patricia M'Caw
January 1964	Nurse Celia Taylor
April 1964	Nurse Margaret Griffiths
July 1964	Nurse Carol Fryer

2nd Prize

October 1963	Nurse Sarah Sutterby
January 1964	Nurse Jane Musson
April 1964	Nurse Marian Burr

The Keogh Prize

1st YEAR PATIENT STUDIES

1st Prize

October 1962 Set	Nurse Jacquelyn Lomas
January 1963 Set	Nurse Stephanie Young
March 1963 Set	Nurse Susan Stanbury
June 1963 Set	Nurse Miranda Matthews

2nd Prize

October 1962 Set	Nurse Daphne Austin Nurse Carolyn East
January 1963 Set	Nurse Sandra Burrows
March 1963 Set	Nurse Wendy Inward
June 1963 Set	Nurse Virginia Rose

The Governors' Prize

2nd YEAR PATIENT STUDIES

1st Prize

January 1962 Set	Nurse Glenys White
March 1962 Set	Nurse Margaret Ford
June 1962 Set	Nurse Elizabeth Hoad Nurse Marion Knight

2nd Prize

January 1962 Set	Nurse Edwina Sheppard
March 1962 Set	Nurse Pauline Rawlinson

The Governors' Prize

GUY'S FINAL PATIENT STUDIES

1st Prize

October 1960 Set	Nurse Penelope Price
January 1961 Set	Nurse Rosemary Methven
March/April 1961 Set	Nurse Iris Warburton
June 1961 Set	Nurse Jennifer Hunt

2nd Prize

October 1960 Set	Nurse Susan Kell
January 1961 Set	Nurse Pamela Jackson
March/April 1961 Set	Nurse Judith Beaver
June 1961 Set	Nurse Elizabeth Malpas

EVELINA CHILDREN'S HOSPITAL OF GUY'S HOSPITAL SCHOOL OF NURSING

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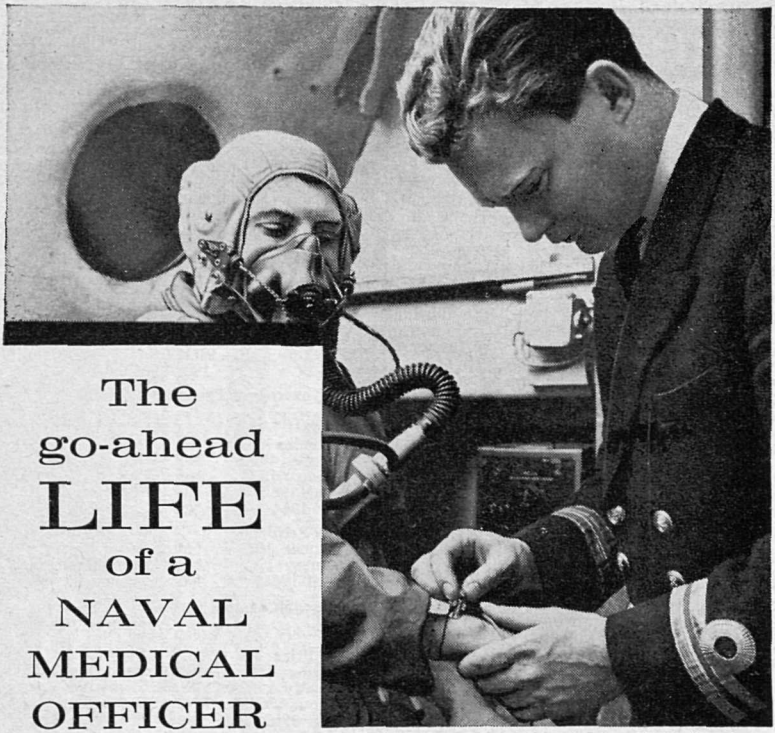

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March 1964 { Nurse Jennifer Jeffrey
{ Nurse Catherine Rowland

2nd Prize

October 1963 Nurse Patricia Smith

Medicine and Medical Nursing

1st Prize

October 1963 Nurse Judith Guest

March 1964 Nurse Jennifer Jeffrey

2nd Prize

March 1964 Nurse Sally Day

Special Diseases of Children

1st Prize

October 1963 Nurse Judith Guest

Hospital Final Examination (Practical)

1st Prize

July 1964 Nurse Judith Guest

Post-Registration Course

Hospital Final Examination

1st Prize

September 1963 Nurse Annette McDowell

September 1964 Nurse Patricia Blackmore

2nd Prize

September 1964 Nurse Helen Scott

Cazenove Medals

Awarded to the Nurses obtaining the highest aggregate number of marks in all examinations and taking into account their record of practical work and their influence within the Training School:

Cazenove Gold Medal:

Nurse Patricia Scotchman

Cazenove Silver Medal:

Nurse Isobel Cleghorn

Cazenove Bronze Medal:

Nurse Barbara Ackroyd (née White)

Butterworth Medals

Awarded to Guy's trainees and trainees of the Evelina Hospital for a minimum of seven years' consecutive service:

Miss Lydia Bishop
Miss Pamela Ford
Miss Gillian Guylee
Miss Iris Heasey
Miss Joan Jarvis
Miss Caroline Ryan
Miss Doreen Hollinghurst
Mrs. Mariel Simons
(née Charles
Miss Elizabeth Wood

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Primary F.F.A., October, 1964

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Penelope B. Hewitt

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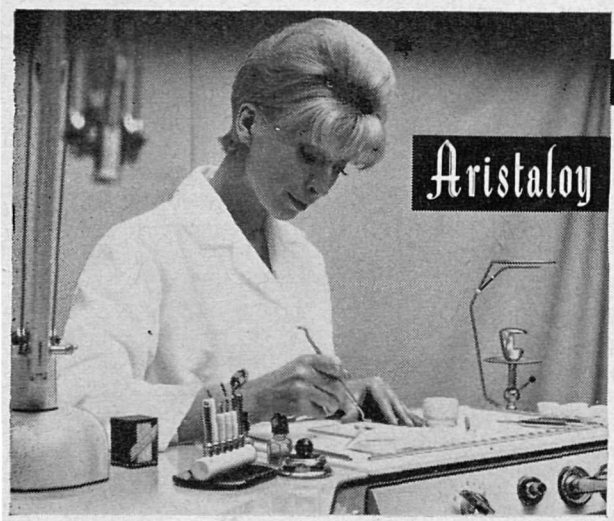

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GUY'S HOSPITAL GAZETTE

Vol. 78
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fortnightly
one shilling

28th November, 1964

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Editors *B. H. Hicks*
P. Bowden

Sports Correspondent *N. J. Knott*

Guy's Hospital, London

PASSIM

Doctor's Orders

"Turn a heater on in your bedroom at least half an hour before going to bed. Switch on again in the morning before you dress. Result: comfort. . .. Small heaters in the lavatory and bathroom will also make life pleasanter. . . ." The British Medical Association has enlightened 14 million families by producing an apology for a pull-out supplement to a woman's weekly, their answer to "Brave New World", "Doctor's Orders". The very pillars of our civilisation shook when an old and reverenced rhyme was twisted to give, *"Apples won't necessarily keep the doctor away, but they help to keep the dentist at bay"*, any medical mystique for the millions is out, this is enlightenment. *" Everyone starts life with a perfect pair of feet"*.

It is difficult to grasp to whom the message on diet is applicable. Is there a hidden section of our society who survive on stout and chips? Over half the text in the booklet concerns food; we are advised to *" Go for the best quality meat, fish and eggs"*, and for breakfast, *"cereals or porridge or fruit or fruit juice. Then bacon and eggs and tomatoes, or sausage or fish and let the hungry ones fill up with all the toast and butter or margarine and marmalade they want."* *"If you have four in the family* (apparently a mother, father, son and daughter is ideal) *your order to the milkman should never be less than 4 pints a day"*. *"Calcium: eat it in the form of herrings, sardines and all the other fishes where you can eat the bones"*, milk is mentioned further on, 4 pints a day mustn't be enough. Alas, there is dissension in the camp for *"There are not many subjects on which ten doctors will give you full support"*, except the time at which children should be sent to bed.

Surely there are many subjects which deserve priority over the breakfast menu. One of the big challenges of our era is that of caring for old people. A few pages on their plight and needs would have been much more apt than the week's recipes. Could there not have been text urging people to take advantage of Mass X-ray Units, to become blood donors or to have their children fully immunised? The dangers of cigarette smoking are relegated to the last pages and there is little mention of the importance of public hygiene and personal cleanliness.

The advertisements are misplaced and inapt; it is obviously unwise to put an advertisement for pork sausages facing a page of text on *"The main meal of the day"*, the impression being that advertisers' products are recommended by the B.M.A.; the Ford advertisement even stresses the fact that the driver has *"time to look round"*. The authors missed the opportunity to insert a strip-cartoon, ending, "If you follow ' Doctor's Orders ', you, too, can live happily ever after".

The next issue of the *Gazette* will be the Christmas Issue, and contributions in lighter vein will be appreciated. We would be delighted to receive short stories, articles, jokes or cartoons from any Guy's men, training or trained. Before Friday, 4th December, please.

The East Wing

The new Students' Club premises have now been in use for several weeks, and general impressions begin to crystallise. As a functional building, serving many social purposes, it has many virtues which we must openly salute, even if we also find faults.

The first floor in particular is well conceived and the black, grey and white and natural wood of the South Common Room should retain that attractive atmosphere of congenial smartness for many years to come. The North Common Room looks, by comparison, rather neglected, and seemingly bears with more envy than grace its subsidiary relation to the main assembly/dance room. Although there are tangible advantages in placing the Bar (which would be improved by a carpet) two floors from the dance floor, a subsidiary bar might help in keeping the Hops out of the way of everyone else. But, having in mind the overall excellence of this building, the most disappointing room of all is the principal Dining Room, in which, more than any other except perhaps the Bar, will our guests be entertained. The bare cold lines of this room, with hardly warmer colourings, bear little evidence of that honourable tradition which Guy's rightly boasts.

However, we must emphasise that these criticisms are made with neither malice nor ingratitude. Whatever our or other opinions on aspects of this new Club, all will join us in thanking those who thought and worked on it for producing a home of which Guy's men may be truly proud.

In order to ensure that queues in the East Wing cafeteria become even longer than they are at present, students will no longer be served at other sources of refreshment in the hospital, as readers may have noticed in our last issue. For those who prefer sandwiches to cold staphs for lunch, we can recommend most of the hostelries around Guy's; to the penniless, our sympathies. To those students with cars, we can recommend parking places in Bognor, Brighton and the Waterloo police "pound"; to them, also, our sympathies. Elsewhere, sympathy is noticeably lacking at present.

GUY'S DIARY

NOVEMBER			
30th	M.	1.00	Mr. BATCHELOR. Clinical Lecture. *Injuries and Abnormalities of the Cervical Spine.*
DECEMBER			
3rd	Th.	1.00	Mr. HUDSON. Clinical Lecture. *Sudden Loss of Vision.*
7th	M.	1.00	Mr. CANN. Clinical Lecture.
8th	T.	1.00	Mr. BEARD. Clinical Lecture.
11th	F.	1.00	Dr. GRIMBLE. Clinical Lecture. *Morality and Sexual Infection.*
14th	M.	1.00	Dr. FORMAN. Clinical Lecture.
17th	Th.	1.00	Dr. HARDWICK. Clinical Lecture.

THE SURGICAL TREATMENT OF OSTEOARTHRITIS OF THE HIP

T. T. STAMM
F.R.C.S.

The hip joint originally evolved as a weight-bearing joint in a quadruped. The assumption of the erect attitude doubled the weight it had to carry when standing, while when taking the weight on one leg the stress at the joint is nearly *double* the body weight (Figure 1). During man's evolution, however, there has been little change in the size of the weight-bearing surfaces. It is not surprising, therefore, that they should so frequently suffer from wear and tear changes inducing the condition recognised by the term osteoarthritis. This is especially so since congenital defects of a structural nature which render the joint imperfect are not uncommon. While the advances in medicine reduce the incidence of so many diseases, the worn-out hip is likely to become even more common as we live longer and more actively and it must present an increasingly important problem. It is, however, one for which no more than a partial solution can even be foreseen for a long time to come.

Although much can be done to alleviate symptoms in the early stages, the condition is inevitably progressive and the time often arrives when more definite measures have to be considered.

The surgical procedures available fall into four main classes:—

I. A group of conservative measures that do not involve reconstruction of the joint.

II. Osteotomy.

III. Arthroplasty.

IV. Arthrodesis.

Conservative Measures

1. *Tenotomy.*

The osteoarthritic hip frequently tends to develop a flexion and adduction contracture. Tenotomy of the ilio-psoas tendon or of the adductor muscles helps to release the contracture and may give considerable relief for a time.

2. *Neurectomy.*

Division of the obturator nerve is another way of helping to release an adduction contracture by paralysing the adductor muscles wholly or in part. Incidentally, some of the sensory nerve supply to the joint may also be severed.

3. *Cheilotomy.*

This usually amounts to a "spring clean" of the joint. The inferior part of the capsule is excised, together with as much as possible of

the synovial membrane. Projecting osteophytes are also excised from the neck of the femur and the rim of the acetabulum. Although this may result in an increased range of movement and relief of pain, the improvement is usually short lived, the symptoms gradually returning after a year or less.

4. *The Forage Operation.*

The object of the procedure is to interrupt the anastomosis between the vessels in the head of the femur and the shaft so as to reduce the state of vascular congestion in the head of the femur. This is accomplished by drilling a hole in the femur just below the greater trochanter through which the cancellous bone in the medullary cavity, and hence the vessels, can be scraped out. Again, relief of pain is often achieved, but only temporarily.

All these procedures have a place in carefully selected cases, but in the writer's opinion they all have one very serious drawback. They may seem comparatively minor procedures to the surgeon and worth a trial. To the patient, however, it is as much an operation as any other procedure. When pain eventually recurs his attitude will be, "I had my hip operation and it was no good, so what's the use of further surgery". It is true one can explain it all carefully beforehand but usually the only person who really listens to such explanations is the one who is giving them.

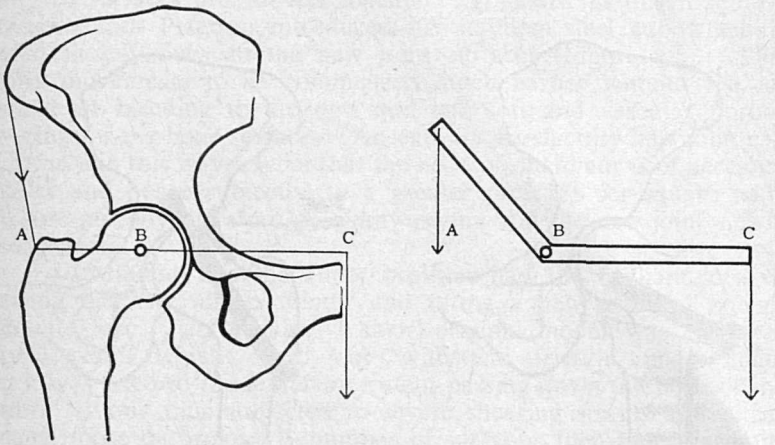


Figure 1. The stress of weight bearing on the hip joint is dependent upon the fact that the abductor muscles have to contract strongly to prevent the pelvis angulating downwards on the opposite side. The force required depends upon the distance A—B and B—C in the diagram. As in the average human A—B is two inches, and B—C about four inches, it is clear that the force required equals twice the weight of the body, falling through the centre of gravity at C.

Osteotomy

In this operation the femur is transected a little above the lesser trochanter. The shaft is then displaced medially and the two fragments fixed with an internal splint. There are a number of minor modifications of a technical nature to this basic procedure which has been in use for over thirty years. It will relieve pain in the majority of suitable cases, and this relief may be permanent. It also has an effect in retarding or arresting the degenerative process. It is claimed that it may actually reverse this process so that the condition of the joint gradually improves, and it certainly would appear that in some cases this is so. Yet even after all this time no one really understands its rationale, as most of the suggested explanations have been disproved, and it remains one of the more cheerful mysteries of surgery.

It is most effective in those cases where persistent pain has forced the patient to seek relief at a fairly early stage in the degenerative process, when the destructive changes are not too advanced and there is still a good range of movement. It is unfortunate that in osteoarthritis advanced changes may occur before pain becomes severe, and also that palliative measures are persisted with until it is too late for this operation to offer a reasonable chance of success. The usually accepted criteria are:—that the hip should flex to 90° with 70° as a minimum, without too much osteophyte formation, and that there should be at least some joint space visible on X-ray, indicating that there is still at least a thin layer of articular cartilage.

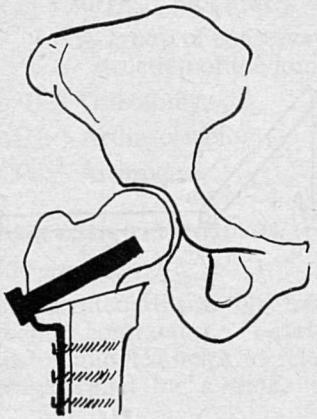


Figure 2. As shown, the shaft of the femur is divided above the lesser trochanter. After displacement medially, the fragments are fixed with a nail plate or similar device.

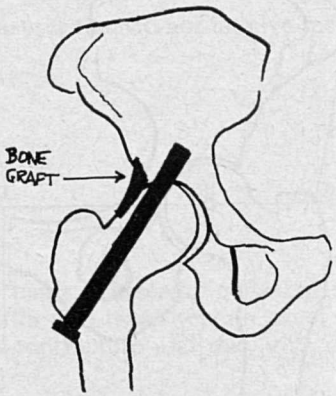


Figure 3. This shows the standard method of arthrodesis by fixation with a trifin nail or lag screw, supplemented with a bone graft taken from the iliac crest.

Arthroplasty

If the degenerative changes have advanced beyond a point where osteotomy offers a chance of success, the obvious answer is to construct (or transplant) a new joint. At present this remains an idea which is a very long way from fulfilment. There are four possibilities:—

1. To excise the degenerated tissues and form a new joint with what is left.
2. As above, but to make good any deficiencies by the use of artificial "spare parts".
3. To implant a new artificial joint complete.
4. To transplant a new joint from another body.

Of these, 1 is history, 2 and 3 the endeavours of the present, and 4 the hope of the distant future.

The classical arthroplasty consisted in excising the capsule and synovial membrane and reshaping the femoral head, removing osteophytes and the degenerated articular surface to leave a smoothly rounded surface of healthy bone. The acetabulum was usually left alone, although sometimes it has to be reamed out down to healthy bone. After-treatment consisted of applying traction in a Thomas' splint until the blood clot covering the new joint surface had organised into young, fibrous tissue. Movements were then instituted to mould this new fibrous covering to form a smooth bearing surface as it condensed into firm fibro-cartilage. The movements would also automatically ensure the development of a new synovial membrane—for synovial membrane is an "Alladin's lamp" tissue that forms whenever two surfaces are rubbed together. To assist in this moulding process, Smith Petersen introduced his stainless steel cup which is placed loosely between the new joint surfaces (Figure 4A). This allows movements to be commenced much earlier without risk of damage or bleeding to the new and still soft and vascular fibrous coverings of the bone surfaces. An entirely satisfactory new joint can be formed in this way, except that the head of the femur is of necessity smaller and hence subjected to a greater pressure per square inch. Pressure atrophy therefore gradually occurs and the new joint slowly deteriorates.

To overcome this the Judet brothers had the brilliant idea of excising the head of the femur and fitting a new artificial one of adequate size. Unfortunately, their original model was made of acrylic resin, which could not withstand friction under load, and it was fixed to the femur by a stem passing down the neck of the femur. It was thus subjected to severe shearing strains and either became loose or broke. A number of surgeons then redesigned the prosthesis in metal. The principle of the design in all these newer prostheses is to replace the head and the neck of the femur so that the weight is transmitted direct to the calcar femorale which is constructed for the purpose, the stem passing down the shaft of the femur in the line of the transmission of weight (Figure 4B). This type of femoral prosthesis has proved to be satisfactory as a replacement in cases of ununited fracture of the neck of the femur when the rest of the joint tissues are normal. In osteo-arthritic hips, however, the results have been uncertain and often disappointing.

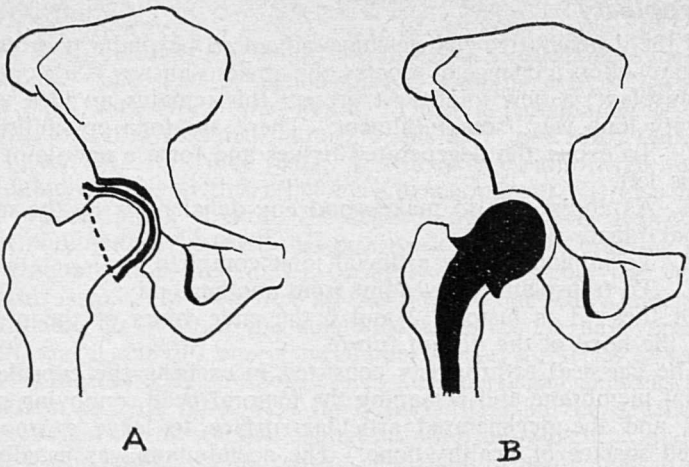


Figure 4. A. Classical type of arthroplasty with Smith Petersen mould cup, B. Arthroplasty using artificial femoral prosthesis.

Since this type of prosthesis only replaces part of the diseased and degenerated joint tissues the next logical development was to insert a new artificial joint complete with both femoral and acetabular components. Moreover, to ensure adequate fixation the new parts are glued to the femur and pelvis with quick setting resin cement. Excellent results have been achieved but when failure occurs one is faced with a formidable problem! It is difficult to believe that this can be more than an interim solution to the problem.

Now that complete organs of such delicate complexity as a kidney can be transplanted, it might be thought that orthopaedic surgeons were lagging behind in not transplanting such a comparatively simple structure as a joint. The prime difficulty lies in the provision of a blood supply to the transplanted tissues. Most viscera, such as the kidney, have a main artery and vein which can be sutured to that of the host. In joints the tissues are supplied from various sources by many small vessels which makes resuture impossible. Further, joints with no nerve supply are liable to develop gross degenerative changes —e.g., Charcot joints. Finally, cartilage has no blood supply and depends for its nutrition on synovial fluid. How can it be kept healthy during the early period after a transplant? All these and other problems will have to be solved before complete new joints can be transplanted.

Meanwhile, other approaches to the problem have been tried out. Thirty years ago Girdlestone suggested that simple excision of the head and neck of the femur, followed by a period of after-treatment with leg traction, would provide a freely movable and painless false joint. The new joint is, however, grossly unstable and considerable shortening occurs. It is, however, still useful as a method of relieving pain and stiffness in the mainly bed-ridden patient with say rheumatoid

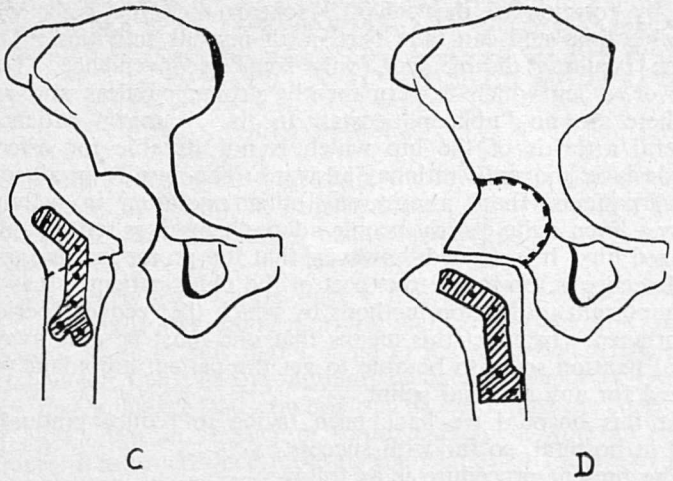


Figure 4. C. Excision of head and neck of femur combined with abduction osteotomy.

D. In cases of bony ankylosis, the angle of abduction of the osteotomy is increased to a right-angle, and a horizontal "acetabulum" fashioned from the remaining head and neck of the femur.

arthritis. Batchelor in this country, and Milch in America added an abduction osteotomy of the femur to improve stability (Figure 4C), and this combination of excision of the head and neck of the femur with an abduction osteotomy has proved to be a useful salvage procedure after the failure of other methods, for example an arthroplasty with a femoral prosthesis where pain has not been relieved.

The writer has developed this idea further in cases where there is a bony anchylosis, as in anchylosing spondylitis. As shown in Figure 4D, the angle of abduction at the osteotomy is increased to a right angle, and a new horizontal "acetabulum" is fashioned as shown using part of the fixed head of the femur. This produces a very stable new joint with reasonably well-adapted new joint surfaces. It has been proved to give good service for over twenty years of active life, but its application is limited to cases of bony fusion. In bilateral arthritis, when one hip has been fixed and the other later gives trouble, it may be justifiable in a young subject to do this type of arthroplasty on the fixed hip and then fix the other hip.

Nothing that is written now about arthroplasty of the hip is likely to have much relevance in 100 years' time. Arthrodesis, however, may well remain in use for a very long time.

Arthrodesis

The idea of having a hip fixed suggests to the patient immobility and crippledom and it is a difficult operation to "sell". In fact, fixation of a painful hip usually gives increased mobility. The patient with a painful hip avoids moving it at all and tends to walk with a stiff leg. If the femur is fixed to the pelvis, he can move the leg

freely by rotation of the pelvis. He can therefore walk with no noticeable limp and can take part in all normal activities. There is thus no resulting disablement, only some inconvenience. He has, moreover, a leg which is permanently strong, painless and reliable and there are no "upkeep" costs. In the younger patient with unilateral arthritis of the hip which is not suitable for osteotomy, arthrodesis is the only rational answer. The results produce more grateful patients than almost any other operation in orthopaedic surgery. Even quite elderly people adapt themselves remarkably well to a fixed hip. It is argued, however, that the prolonged and arduous convalescence is too much to expect of the older patient. It is, therefore, important to develop methods by which the recovery period can be shortened. In effect this means that one must be able to rely on internal fixation so as to be able to get the patient ambulant without the need for any external splint.

At this hospital we have been trying to reduce gradually the period in hospital, so far with success.

The present procedure is as follows:—

After carrying out the standard routine through a Smith Petersen approach the hip is fixed with a trifin nail or lag screw so placed that it penetrates the roof of the acetabulum into the thickest part of the pelvis. This is supplemented by an iliac bone graft inserted into the upper part of the head and neck of the femur and the adjoining part of the pelvis. (Figure 3, page 548).

Following the operation the patient is nursed free in bed or in a Stryker frame. In the average case they are allowed out of bed in 7—10 days, to start walking in a walking machine in 2—3 weeks and to return home or to a convalescent home in 4—6 weeks.

Summary

Although it is not possible to be dogmatic about an unsolved problem, one can at least define the basic approach to the problem adopted at this hospital. For early cases with persistent pain and especially in bilateral cases an osteotomy of the McMurray type is usually indicated. In more advanced cases in which the range of flexion is less than 70°, an arthrodesis is indicated, except:—

1. In the elderly. Generally speaking, patients do not adapt themselves so well after the age of 70. Moreover, bony union is less likely to occur. Finally, as they are not likely to subject the hip to severe strain an arthroplasty may serve them very well.
2. In bilateral cases one cannot fix both. If they both require surgery the usual practice is to fix one and do an arthroplasty on the other.
3. Stiffness of the knee is an obvious contra-indication.
4. Associated arthritis of the spine is usually held to be a contra-indication as a fixed hip may throw more strain on the back. In practice, this has not been found to be a serious objection except in severe cases.
5. Technical difficulties which render arthrodesis impractical—for example, necrosis of the head of the femur.

It is these cases that give us the opportunity to pursue our endeavours to develop a really satisfactory new joint at the hip.

THE COOK ISLANDS
EAST OF THE SUNRISE

JOY PURSER

Somewhere east of the sunrise, in the low south latitudes, where the deep waters of the Pacific reign supreme, the remote archipelagos of Polynesia lie scattered—a few handfuls of forgotten islands smiling in the dawn.

It was nearly eight years since I had arrived at the end of the world, on a bright and sunny morning and saw for the first time the loveliness of those islands that I came to know so well. Eight years since, I had left the friendly, familiar, beloved influence of Guy's, to discover that influence had reached out to the uttermost parts of the earth. Now, after an absence of some years spent working amongst other races, I returned once more to the islands of the South Pacific and the incredible responsibilities of a government medical officer in a forgotten outpost.

This was a different island group from the one I had left years before, more remote and beautiful, but the inhabitants were of the same race. They were the same proud, friendly, handsome people of Polynesia. It seemed incredible that I had been so long away. The little, colourful island settlement that was now my home lay around me like a familiar dream, soaked in the peace of the Pacific sun.

The Cook Islands lie within the tropics far in the South Pacific, just east of the International Date Line and about halfway between the coasts of New Guinea and South America. They are remote by any standards, a Government vessel from New Zealand that came to Rarotonga once a month—weather permitting—being, together with the radio station, our only slender contact with the outside world. The group consists of fifteen small islands widely scattered over half a million square miles of ocean. In the southern part the islands tend to be of volcanic origin, and Rarotonga, the seat of government for the group, has some of the most beautiful and spectacular mountain peaks in the Pacific. The northern Cooks are mostly low lying coral atolls, while everywhere the hidden coral reefs encircle each tiny unit and lurk treacherously beneath the surrounding seas. It is the presence of these dangerous reefs that has tended to keep the Cook Islands far from the main trade routes of the world, and contributed not a little to the paucity of communications.

There are haunting names amongst the islands; names that, spoken by a Polynesian tongue, always seemed to me to convey exactly the gentle beauty of these lonely places. Such names as Rakahanga, Tongareva, Puka-Puka, Manihiki and Aitutaki. The total population of the group is about eighteen thousand people, that of each island varying from a few dozen to a few thousand.

When I first arrived in the Cooks there were two of us to administer to the physical and mental afflictions of the inhabitants of our far

flung practice. The thought that two of us might be incompatible never occurred to me until I returned to England and someone mentioned it. Anyway, I was fortunate. I could not have wished for a finer colleague anywhere in the world. The work was long and exacting but there was comedy in the most extraordinary places. Inevitably such a partnership was to be short-lived. My colleague was long overdue for leave and he was dead tired from gross responsibility that had been thrust upon him by the mortal sickness of the only doctor in that group of islands. This doctor died in New Zealand the day after I arrived in Rarotonga. So far there were no replacements forthcoming. Such is life in the back of beyond that it does not seem to attract many doctors.

So, one still and lovely evening, I stood on the little jetty with the island throng and waved goodbye to my colleague and his family, wreathed in their "lias" of farewell. I watched them go with sorrow. I suppose, under the circumstances, they were some of the best friends I had ever had. As I wended my way back along the lagoon shore to my home, a feeling almost akin to panic came over me. I suddenly realised, with an overwhelming force, that there was no other doctor but I between here and New Zealand, nearly two thousand miles, and the realisation depressed me. It is a situation that has to be experienced to be appreciated. However, such is the versatility of the human spirit that I quickly learned not to dwell on the appallingness of the situation. After all, I thought, there must be thousands of other doctors throughout the world completely alone and cut off from their colleagues in jungles, mountains and deserts. And I drew what little comfort I could from this band of unknown comrades.

In such isolated and unsophisticated regions as the Pacific islands one frequently finds oneself in somewhat alarming situations, and many times I have been grateful for the resourcefulness and adaptability fostered by the wise teaching at Guy's. I recall one day I had finished the evening round and stood idly listening to the night sounds of the Pacific, a favourite occupation of mine, when a smiling Polynesian nurse came out of the dimness and said, "Please doctor, the telephone wants to speak to you." It transpired that I was wanted in the labour room. On this particular occasion the local electricity had failed, but these island girls in their ingenuity had stuffed coconut husks into the necks of bottles filled with kerosene, and the naked flame gave out a reasonable but smoky light. These flaming bottles stood on the floors at strategic points round the wards, casting dancing, eerie shadows on the coconut trunks beyond. When I reached the labour room an enormous, fat woman was lying on the bed in late labour, with a rather puzzled-looking nurse peering hopefully at the perineum. She straightened up when I entered and her dusky face looked tired and gentle in flickering light from the kerosene bottle. She informed me that on doing a rectal examination she thought she had felt the cord. My heart sank a few more feet, and I wished again for the millionth time that this was the labour room in Victoria Ward, and the registrar was only at the end of the telephone. The membranes were still intact

and the foetal heart good. I did a V.E.. There was still a rim of cervix and sure enough, there was the cord presenting—pulsating away in a bag of membranes. While I remained in this position of ghastly indecision suddenly the membranes ruptured with an audible report, pea-green liquor swirled into the bed and about twelve inches of cord snaked along my forearm. The first thing that came clearly to my mind was that whatever had to be done had to be done swiftly. Alas, I had only one pair of hands, and one willing nurse. Quickly all naked lights were banished, which left us in complete darkness, so a torch was propped in the position of greatest vantage. By a lack of foresight there were no sterile instruments ready, and the sterilizer was out of action. I asked the nurse to get the forceps from the cupboard and lay up a trolley as best she could, with a bowl of dettol water. While she did this I anaesthetised the patient with ethyl chloride and open ether on a Schimmelbusch mask. How grateful I was for my anaesthetic training, and in my mind's eye I saw again the demonstration of the open mask technique at Guy's. When the patient was fully anaesthetised I left the nurse to continue pouring on the ether while I, for better or for worse, smartly applied the unsterile forceps. Luckily all went well, and mother and child (and doctor) survived the assault. I mention this incident merely to show under what extreme difficulties and hazards one often has to work, and unfortunately the ending is not always as happy as this. One does the best one can, but "the best" is cold comfort for a failure, as I know too well.

Wherever my work has led me throughout the world it is the paediatric part of it that I have enjoyed most and the children of Polynesia were my especial delight. Who could not fail to be enchanted by these handsome, golden creatures, with their smiling faces and their wise eyes? Most of the ones that came to me were, of course, sick; many of them desperately sick. I have seldom seen such sick patients, either adults or children, in the more civilized places of the world. Indeed, they would never have reached me if they had not been as ill as they were. If I am asked why I choose to work in such remote and unknown regions I think my answer would be simply because I like to see sick people get well. There is a strange satisfaction in seeing the desperately sick recover and mortal conditions reversed by simple treatment appropriately given. My sorrow is that I am not particularly skilled in any one field.

Practising in such a watery empire it was inevitable that before long I found myself on board a little inter-island schooner, visiting my distant medical out-stations. This was the life I loved best. The Tiare Taporo was a beautiful little vessel of 137 tons, built in New Zealand more than fifty years ago. She lost her main mast in a hurricane recently, and this has upset the balance, so that she rolls even in the calmest sea. There are four berths in the saloon, the skipper, a Fijian, having his own cabin aft. I occupied the lower berth on the port side, a Dutch Roman Catholic priest, Father Pièrre, having the berth above me. He was a fine and widely loved figure in the islands. I had treated him in the past for renal colic. He was a little nonplussed to see me in the bunk below him, but

Father Pièrre had lived for years in the islands and was accustomed to island travel. This was no luxury cruise liner of the West, it was an unknown cockleshell in the South Seas. The other European on board was the resident agent of one of the outer islands returning to take up his post. He occupied one of the other berths across the table on the starboard side, while his fat and jolly Polynesian wife had the fourth bunk. Their little girl, Mea, shared the deck with other miscellaneous island bodies. Indeed, in those rolling seas it was probably safer lying under the table where one had no distance to fall. Most of the forty or so deck passengers squatted amidships just forward of the saloon, between two rowing boats and lashed down with a tarpaulin to keep them from rolling overboard. Here they laughed and chatted and prepared the food, playing ukuleles and singing their haunting island songs.

During the first twenty hours, a few of the passengers were seasick, for it is a curious fact that Polynesians can sail hundreds of miles in their narrow tossing canoes without turning a hair, but the moment they step on to anything larger with a slightly different motion they are overwhelmed with sea sickness. I am fortunate in that the sea is almost my natural element, and its vicissitudes and restlessness quietens my mind, sharpens my awareness and finds a strange and sympathetic kinship with my own restless spirit.

The first night I saw several nauseated patients. A little seven-year-old boy, returning to his home on one of the outer islands, was brought to me with abdominal pain. I hoped desperately that I would not be required to open an abdomen under such conditions, but the boy was only seasick. A few drops of Tinct. Opii. in a little water works wonders for these people so afflicted, and with the help of Ben, a lad from the atoll of Manihiki in the northern Cooks, I became quite adept at measuring drops accurately while keeping a vertical posture on a violently lurching deck. This Tinct. Opii. so used became known as "the doctor's gin medicine". I saw that the deck passengers were lying in all directions, groaning in discomfort, wrapped up like cocoons in their sarongs, and by the flickering light of a hurricane lantern and with the aid of the engineer and Ben we managed to turn them all so that they were lying with their heads and feet fore and aft, thus minimising the effect of the rolling on their physiologies. I had learnt this trick from the Samoan islanders, and it always seemed to help a great deal.

Ben proved a great boon to me. He was a sort of ship's boy, a happy, friendly lad from the far atolls, whom the skipper had taken to sea in early childhood and he had hardly left the sea in all his fifteen years. Ben became greatly interested and intrigued with my medicines, my instruments, and my skills. For a fleeting moment I felt almost like Hippocrates with one of his most enthusiastic and ardent disciples! Ben was far more adept than I at pouring correct doses of medicine on a dancing sea, but when an overdose was poured —as so easily happened—he could not bear to see me throw such

The hospital at Atafu, Tokelaw Islands

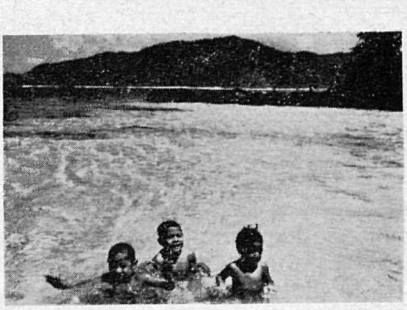
good medicine away and I had to admonish him severely when he tipped the cup to his own lips, and just in time I snatched it away and committed its forbidden contents ruthlessly to the sea. He was like a cat on that ship. Indeed, I do not know what I would have done without him. I had to see one of the crew who fell sick in a tiny locker up in the bows. To get there I had to walk along the gunwale, hanging on to the halyards with one hand, while at every roll the waves washed over my bare feet. (I always had bare feet on board as it was safer on the wet decks.) Ben raced on ahead, nimble as ever, carrying my stethoscope and bag of medicines and always looking back to make sure I had not been washed overboard. In the bows were two beautiful black sows with about eight piglets squeaking around trying to keep their feet. One of the sows was lying forlornly stretched out on her side, seasick, cold, with the flying spray breaking over her. After I had waded through the piglets and their dropping and seen my patient, Ben asked if I would give the sick pig some aspirins to make it stand up. I had no wish to waste my precious aspirins on a seasick pig and there seemed no justification for so doing, so I told Ben the animal would be alright if he put a blanket over it. Ben shook his head mournfully and said the pig would surely die, and it would be a great loss to its owner. But I prophesied that the moment the mountains of Rarotonga rose above the waves the pig would stand up and walk, and sure enough, at the end of that epic voyage, as we sailed slowly along the reef, there was the pig excitedly squealing in the bows, sniffing the off-shore wind as carefree as any pig in paradise could be.

We reached the first island soon after dawn on the second day. It was raining hard and a stiff breeze was blowing as we edged cautiously towards the reef. Islanders had rowed out in long boats

to take us ashore, and a rope net was thrown over the ship's side to help such as me to clamber down the rolling hull. Some massive Polynesian man had hold of both my wrists and dangled me over the gunwale like a sack of oranges. They were concerned lest I should further drench my already sodden clothes. I half jumped, half fell on to a pile of sacks of cement lying in the long-boat, and my belongings were carefully passed from hand to hand after me as if they were the Crown Jewels. The rain poured down on me and someone threw a mackintosh over my head. I had donned a pair of sandals, which squelched in the wet cement, for should we meet with a mishap when crossing the reef, the coral is razor sharp and jagged to such tender feet as mine, reared in western shoes. I crouched in the frolicking boat on my damp "cushions", out of range of the nearest oarsman. The Polynesians are amongst the finest mariners on earth; skilled by the elements and the centuries, they are past masters at shooting the boiling reefs in such crazy little craft. Six men, as sturdy and strong as only men of their race could be, clothed only in their loin cloths, their bodies and hair soaked by the sea and the rain, took a long oar apiece and rowed like gods to the shouted orders of the coxswain standing like a figurehead in the stern. We quickly drew away from the schooner and approached that awful looking reef. Across the lagoon, about two hundred yards away, I could see the dresser and his wife waiting on the shore to welcome me with a crowd of interested islanders to whom inclement weather meant nothing at all. A ship (albeit a tiny inter-island schooner) had come to their island. This was a red letter day for the inhabitants of this lonely outpost, the excitement of which was unknown in the annals of the inhabitants of such ports as Southampton and London. Within a few yards of the reef a command was shouted to stop rowing. It seemed to me that we had paused on the very edge of the world, and the great waves that rushed past us tore restlessly at the jagged battlements and rolled on into eternity. One can pause like this for twenty to thirty minutes, and then all of a sudden there is a tremendous shout, everyone rows like mad towards what looks like a great wall of bare coral and at the crucial moment a mighty wave curls up from the deep and gently and swiftly as an English stream bears the frail boatload across the reef into the still lagoon beyond. Although I was long since accustomed to island travel, this method of crossing the reefs never lost its old thrill and exhilaration.

On the islands I visited I saw many patients, inspected the medical equipment and set-up, scattered advice and requests with regard to clearing the bush away from the villages and covering the water tanks and other public health measures, performed minor operations and arranged for cold medical and surgical cases to come to the hospital at Rarotonga where facilities were a little better. The details of such a commission would fill many chapters and the full story of that far-away life has yet to be told.

Sometimes I spent the night ashore on an island, while the "Tiare Taporo" cruised incessantly up and down off the reef; and other nights I slept aboard the ship, sailing between islands. At nearly every



Samoan children, spastic patients at Lefunga, Western Samoa

island we had a dresser—a local lad medically trained in Fiji—who alone shouldered the immense responsibilities of such a remote posting. Often have I marvelled and been humbled at the way these dressers will go to an outer island—not necessarily their home island—and spend years in such regions where a permanent medical officer cannot be spared. They are expected to shoulder the grossest responsibilities with only the slender contact by radio of the medical officer, such as myself, at Rarotonga for support; and the occasional visit of the medical officer to the outer islands. I always felt that anything was justified that helped to share the lonely responsibilities of these outer island dressers. Indeed, many greater men than they would have perished long ago in similar situations.

One bright morning I went ashore at the tiny island of Mitiaro. There seemed an unending line of out-patients, with a variety of disorders, arrayed for me beneath the shady coconut palms. I examined them in a clean little shack that housed the dresser's bulk bottles of "Mist Diarrhoea", "Mist Cough", "Mist Headache", etc. But it was a hot and humid day and I felt very tired and retarded. The people were kind and considerate, they tried their hardest to be helpful—often exasperatingly so. I examined pregnant abdomens on one mat, chests in another corner and children around my bench. They crowded in and the atmosphere grew hotter and hotter. The Clerk-in-Charge, a middle-aged Polynesian, was so short-sighted that he could not see to read or write clearly. Of latter months the Administration, guided by the deterioration of his hand-writing, had assumed the man to be going senile, and had threatened to relinquish him of his post. This had upset him considerably, and I was able to restore his equanimity by informing him that all he had to do was to come to Rarotonga to be fitted with a pair of spectacles. The people of the Cook Islands had never had a female medical officer appointed amongst them before, and if they were disappointed by my appearance it is to their eternal credit that they never let me know.

At last I crossed the reef again and clambered up the rope net into the "Tiare Taporo", with the usual blossoms round my neck and hanging drunkenly from the wreath on my head.

When the weather was right the skipper would put up as much sail as he could to help to steady the roll. England seemed very far away, and the Cotswold hills of my childhood seldom crossed my memory. All that life was now years ago, and half the world rolled between.

In the evening I would sit on my favourite bollard at the stern of the ship, next to the silent helmsman who quietly smoked the night away. The sun rolled down in a blaze of glory and I would watch for the green flash that often glows momentarily in the western sky as the sun dips below the sea. The silence of the immense universe was vast and deep; a huge, positive silence that could actually be touched. A silence that was part of the chugging vessel, the wind and the haunting songs of the islands. I mused long on the restless peace of those lovely evenings, and I remembered in the Tokelau atolls far to the north the people had once told me that their sun set in the east. As time and hemisphere begin and end with the Date Line, so it seemed fitting that in these far-away regions east of where the days began the sun should rise in the west and set in the east.

NOTICES

The Theatre Club

Next Time I'll Sing to You will be presented from November 30th to December 4th, and *The Importance of Being Earnest* from December 7th to December 11th, in the Physiology Theatre, at 7.30 p.m. every night, except Wednesdays (at 6.30 p.m.). Some seats are still available in the earlier part of each week.

Guy's Hospital Science Club

The next meeting of the Science Club will be held in the Committee Room in the Medical School on Wednesday, December 9th, 1964, at 4.45 p.m. Mr. F. G. Ellis, of the Department of Surgery, will speak on *Micturition by Electrical Stimulation*. The chair will be taken by Professor H. J. B. Atkins. Any members of the teaching and research staff of the Hospital and Medical and Dental Schools are cordially invited.

Christian Union

The annual Carol Service will be held in the Chapel at 7.30 p.m. on 11th December. The speaker will be the Rev. C. J. E. Bridgland.

Meetings for students are held in the North Common Room on Mondays at 5.30 p.m., for nurses in the Nursing Home on Sundays at 9.0 p.m.

Pupils' Physical Society

A National Symposium on Medical Education is being held in Birmingham on January 9th and 10th, 1965, based on a document prepared by last year's Education Officer of the British Medical Students' Association. In the meantime, Medical Schools are being asked to consider the Document and all matters connected with undergraduate Medical Education. Discussion in Guy's will start on Monday, 30th November, and all Clinical and pre-Clinical students interested in participating would be welcomed. There will be several meetings during the coming weeks, and from those attending, at least one person will be elected to attend the symposium.

Louise Buchanan Memorial Fund

The Louise Buchanan Memorial Fund is offering a prize of £50 for the best essay on The Aetiology of Hodgkin's Disease. Entries, marked "Hodgkin's Disease", should be sent to the Department of Medicine before 2nd February, 1965.

SPORT

RUGBY FOOTBALL

It is not often that your correspondent has the pleasure of reporting that three of the four matches played in the past fortnight were won by Guy's. Too often one reads how well the team played against the first class sides, and how dismally it performed against the weaker sides, barely managing to scrape home. However, recently the team has been making no mistakes about its victories. The game against the Old Blues was won 41—3.

A weakened team beat London University 24—9. Last Saturday, Aberavon beat the Hospital 25—6. Guy's held the initiative throughout the first half and were leading 6—0 until shortly before half-time. However, the greater experience of the visiting side enabled them to capitalise on the mistakes made by Guy's in the second half, and they eventually won by five goals.

On Wednesday, Guy's put up a magnificent performance against Buckinghamshire, a new fixture. Seldom have Guy's taken advantage of the chances offered them as they did in this game. Guy's were on top throughout the game, and won convincingly 13—3, scoring three superb tries. The team is fairly stable at the moment, and its supporters are hoping for great things in the Cup in January.

United Hospitals had a tour to Scotland, and won both their matches, against a combined St. Andrew's and Dundee side, and against Edinburgh University. Four Guy's men were playing: Kingdon, Davies, Baker and Edgar.

Eight sides are turning out regularly each Saturday. This week, the "A", Extra "A" and Wanderers all had victories over Rosslyn Park. There is much talent amongst this year's freshmen, and three are playing for the first XV: Cockburn, Ross and Brown.

HOCKEY

The Club's recent performances have been far more encouraging, and with a little more thought in attack, there is no reason why last season's success should not be repeated.

The 1st XI has suffered only one defeat so far, and the fact that only three goals have been scored against the team in Saturday matches shows the strength of the defence. The social standing of the Club was upheld at Gravesend, when the evening saw the shattering of the " bar-takings " record. It has been equally enjoyable on the field, and in particular the defeat of the Middlesex Hospital by 2—0, in the first round of the Hospitals' Cup, was very satisfying. Against National Provincial Bank the standard fell somewhat, but this was more the fault of the deceptive pitch, and also the unfortunate loss of M. Appleby, who was injured shortly after the interval.

R. Carruthers is to be congratulated on his debut in the U.H. XI, as a replacement for the injured Appleby. This means that seven Guy's players have represented U.H. this season.

The supporting XI's continue to play good hockey, and it is their keenness which gives the Club its strength. Both the 2nd and 3rd XI's have only been beaten twice, and although the 4th XI has not been able to field a regular team, they have put up some very creditable performances.

SWIMMING

The Guy's Men's side retained the University of London Inter-collegiate Swimming Championship by a convincing margin, 60 points, against 51 points for their nearest rivals. The Ladies' team came third in their championship. A full report will appear in a future issue of the *Gazette*.

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Reports and Results

RUGBY FOOTBALL

GUY'S v. LONDON UNIVERSITY

At H.O.P. 11th November, 1964

Result: won 24—9

Guy's were without four regulars, who were playing for the United Hospitals, but won well against London University by three goals, one try and two penalty goals to one try and two penalty goals.

The conditions were very good when the game began, with London University attacking. They were quickly ahead with a penalty goal but the reply from Guy's was immediate. B. Rowlands ran through a hesitant defence, having taken a reverse pass from his scrum-half, for a try which R. Brown converted. The University, however, went ahead again when A. Morris' clearance kick was charged down for a forward to score a good opportunist try. Apart from this one slip, Morris' play was exemplary.

Guy's now began to capitalise on their greater speed and weight. The next two tries, between which London University scored a penalty goal, were both good. First, from a tight scrum the ball went to A. Allen who put in a nice grub kick, and J. Ross won the race to touch down. Morris converted. Then, just before half-time, the forwards pounced on a cross-kick from the right wing and the ball travelled quickly to J. Ross who scored again in the left corner.

Following this incisive first half, play seemed scrappy after the interval. Guy's were generally on top, but London University, with only 14 men, kept them out until five minutes from the end. Then R. Brown kicked two penalty goals and scored a try, which A. Morris converted, to round off a good team effort by Guy's.

C. J. WRIGHT

Team: A. Morris; J. Ross, A. Allan, D. Osborne; R. Kerner, B. Rowlands; D. Bevan, R. Stansfield, P. Ashcroft, A. Fisher, M. Cockburn, P. R. Peace, H. Sharp, K. Brown, R. Brown.

HOCKEY

Inter-Hospitals Cup, First Round

GUY'S v. MIDDLESEX HOSPITAL

Result: won 2—0

With the fate of the Cup more open than it has been for some years, Guy's made a good start by beating the Middlesex. However, although the result was good the performance was not completely so. The Middlesex showed little of their customary fire, and Guy's once again proved themselves incapable of inflicting heavy defeat on weak opponents.

Guy's started well and the ball was soon moved about authoritatively, although the defence was again shaky. It looked as though it would not be long before Guy's scored, but chances came and were wasted with monotonous regularity. However, half-time was reached with Hirst, in goal, having not touched the ball; and yet no score.

Shortly after the re-start, a Middlesex burst produced a good save from Hirst. Guy's continued to play well and dominate mid-field, but neither wings, who are playing well this season, were used enough; although both insides generally played very well. Not until Liddiard moved well for an intelligent free hit from Brooks did Guy's manage to score.

Guy's fifth short corner, somewhat unorthodox, produced a shot from Appleby which the opponent's back was only able to get a foot to. However, the ensuing penalty stroke was missed. Almost immediately Bennett scored from a good movement; and the Middlesex's final effort resulted in Hirst brilliantly saving a penalty stroke. The game finished with Guy's producing further good hockey, and no goals. This was generally a good display, but the spectators, who gave fine support, must have been disappointed not to see half a dozen more goals to their side.

K. E. HAYNES

Team: A. Hirst; D. Loader, K. Haynes; J. Crafts, C. Brooks, N. Turfitt; R. Carruthers, S. Cripps, M. Appleby, P. Bennett, P. Liddiard.

CROSS COUNTRY

After a slow start, the outlook for the Club is quite promising, with seven freshers and six new members. Guy's I now stands 10th out of 13 in the 1st division of the London Colleges League. On 31st October, a team came down from Clare College, Cambridge. It was a beautiful autumn day, and Hadley Wood was at its best. Though defeated by 10 points to 27, it was a most worthwhile fixture, after which Clare came to the Club Hop at Guy's.

Peter Witting is running very well as No. 3 in the United Hospitals' team, and has been representing London University for the second year in succession. D. Choat, a freshman, has done several good runs. If all members continue serious training our chances in the Kent Hughes Inter-Hospitals' Cup remain good.

Results:

Match v. Latymer Upper School

Wednesday, 14th October At Hammersmith

P. Witting 1st, J. Wheeler 3rd, A. Lakin 5th, C. Hone 12th, A. Brown 14th, R. Lane 15th, R. Lee 16th

Guy's lost by 48 pts. to 36.

University College Invitation Relay

Saturday, 17th October

over Parliament Hill Fields. 6 x 1.6 miles.

Leg	Name	Time	Team position	
1.	J. Wheeler	9.44	29	
2.	J. Cooke	9.20	26	
3.	R. Lee	11.19	30	
4.	R. Morris	9.55	24	
5.	A. Lakin	9.35	24	
6.	E. Bowen-Jones	9.47	23	(final position)

Approx. 34 teams competed.

WATER POLO

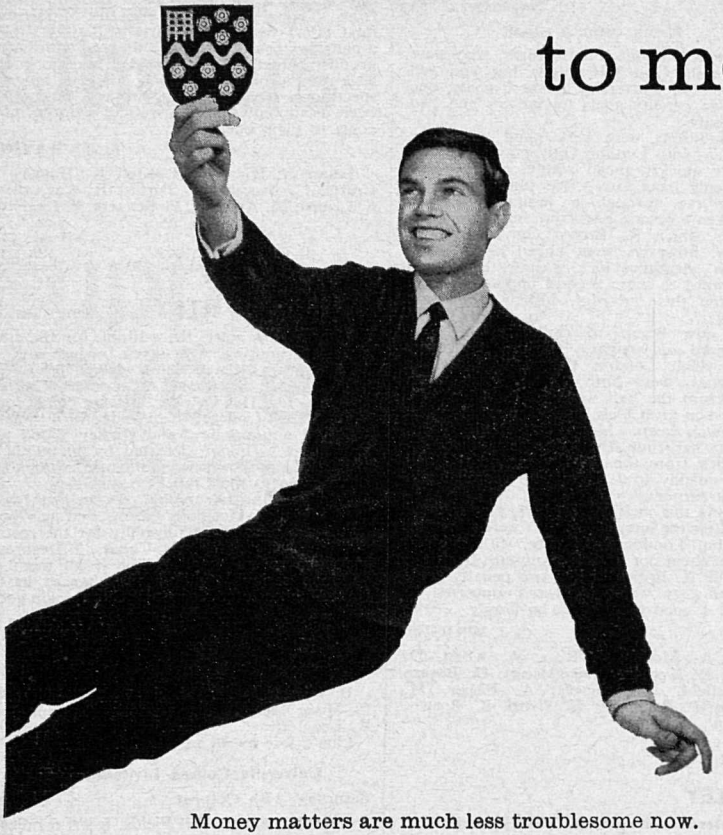
Since the last report Guy's I defeated Kings I in a closely fought match. This was an unexpectedly difficult match against a team that we underrated. The victory to Guy's was deserved but not expected from the way the team was finishing.

A walk-over against The London put Guy's top of the league at the half-way stage.

The 2nd team is top of their league, being undefeated as yet.

B. H. VALENTINE

Full marks to me!



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HOSPITAL INFORMATION

APPOINTMENTS VACANT

GUY'S-MAUDSLEY NEUROSURGICAL UNIT

Applications are invited for the post of **Registrar** (Middle Grade) for one year commencing 1st January, 1965. The Unit, which is housed in the Maudsley Hospital, serves both Guy's Hospital and the Bethlem Royal Hospital and the Maudsley Hospital. Applications should be made by **5th December, 1964,** to L. H. W. Paine, House Governor and Secretary, Maudsley Hospital, Denmark Hill, S.E.5.

GUY'S HOSPITAL, LONDON, S.E.1.

Applications are invited for the post of **Senior Registrar in Child Psychiatry,** with duties commencing as soon as possible. Application forms are obtainable from, and should be returned to, the Superintendent, Guy's Hospital, London, S.E.1, not later than **14th December, 1964.**

GUY'S HOSPITAL, LONDON, S.E.1.

Applications are invited for the appointment of **Full-Time Registrar in the Department of Conservative Dental Surgery,** with duties to commence as soon as possible. Forms of applications are obtainable from, and should be lodged with, the Superintendent, Guy's Hospital, London, S.E.1, not later than **Friday, 11th December, 1964.**

GUY'S HOSPITAL, LONDON, S.E.1.

Applications are invited for the appointment of **Registrar in the Department of Dental Radiology,** to attend on five or six sessions per week, with duties to commence as soon as possible. Forms of application are obtainable from, and should be lodged with, the Superintendent, Guy's Hospital, London, S.E.1, not later than **Friday, 11th December, 1964.**

HOUSE APPOINTMENTS

December 1st, 1964

Assistant House Surgeons

To:

Mr. Lawrie — Mr. R. Gilkes
Appointed for 6 *months, the first* 3 *as A.H.S.*

Mr. Glover — Mr. T. C. Davis
Appointed for 6 *months, the first* 3 *as A.H.S.*

Mr. Brain — Mr. A. J. Knell
Appointed for 6 *months, the first* 3 *as A.H.S.*

Mr. Beard — Mr. T. F. W. Dilke
Appointed for 6 *months, the first* 3 *as A.H.S.*

Assistant House Physicians

To:

Dr. Mann, Dr. Scott and Dr. Bishop — Mr. I. C. MacLennan
Appointed for 6 *months, the first* 3 *as A.H.P.*

Dr. Hardwick, Dr. Trounce and Dr. Deuchar — Mr. H. D. Tunstall Pedoe
Appointed for 6 *months, the first* 3 *as A.H.P.*

Dr. Baker, Dr. Houston and Dr. Grimble — Mr. D. M. Evans
3 *months*

Dr. Kauntze and Dr. Joiner — Miss C. G. E. Gladstone
Appointed for 6 *months, the first* 3 *as A.H.P.*

Professor Butterfield and Dr. MacLean — Mr. M. L. Wastie
Appointed for 6 *months, the first* 3 *as A.H.P.*

Casualty Officers

Mr. H. A. Armstrong — Mr. J. R. W. Keates
Mr. T. J. B. Harris — Mr. C. J. Padfield
Mr. F. D. Higgs — Mr. C. P. W. Warren
3 *months*

House Surgeons

To:

Mr. Eckhoff — Mr. A. Dowlatdad
6 *months*

Professor Atkins — Mr. W. G. Reeves
3 *months*

Mr. Wass — Mr. P. Banks
6 *months*

Mr. Blackburn — Mr. M. N. Maisey
3 *months*

House Physicians

To:

Dr. Mann, Dr. Scott and Dr. Bishop — Mr. P. K. D. Bush
6 *months*

Dr. Hardwick, Dr. Trounce and Dr. Deuchar — Mrs. J. E. Husband
6 *months*

Dr. Baker, Dr. Houston and Dr. Grimble — Mr. I. Vadasz
3 *months*

Dr. Kauntze and Dr. Joiner — Mr. A. E. Davis
3 *months*

Professor Butterfield and Dr. MacLean — Mr. B. G. R. Neville
6 *months*

Resident Obstetricians

1. 7.64—31.12.64 — Mr. D. G. Bancroft
1. 9.64—28. 2.65 — Mr. A. Thomas
1.11.64—30. 4.65 — Mr. J. R. Hockey

Throat and Ear House Surgeons

Mr. J. A. S. Carruth — 3 *months*
Mr. D. G. Nancekievill — 6 *months*

Orthopaedic House Surgeons

Mr. R. L. Strickland — 6 *months*
Miss S. H. Marshall — 6 *months*

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Neurological House Physician

Mr. B. S. Worthington — 3 *months*

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Children's House Physicians
Mr. G. T. Klauber 3 *months*
Mr. R. Jacques Parker 6 *months*

House Physicians in Clinical Pathology
Miss G. McCarthy 3 *months*
Re-advertised 6 *months*

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Mr. T. E. J. Healy 3 *months*

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1.10.64—31.3.65
To:
Dr. Stafford Clark Mr. R. H. S. Mindham
1.10.64—31.3.65
To:
Dr. Fleminger Miss M. Restell

R.M.Os in Nuffield House
1.7.64—31.12.64 Miss R. A. Smith
1.9.64—28. 2.65 Mr. C. E. P. Wharton
1.1.65—30. 6.65 Mr. I. M. Boyd

Resident Anaesthetists
1. 9.64—28.2.65 Miss R. R. Norton (S.H.O.)
1. 9.64—28.2.65 Miss B. Allen
1.12.64—31.5.65 Miss M. J. Wallace (S.H.O.)
1.12.64—31.5.65 Mr. M. J. Wright

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House Physician to Dr. Roberts:
Mr. J. P. Sedgwick

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House Surgeons:
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House Surgeons:
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PAPERS BY GUY'S MEN

Horton, J. E. Articles on Liver and Pancreas, in *Medical Annual*, 1964.

Kennedy, G. C. Hypothalamic control of the endocrine and behavioural changes associated with oestrus in the rat. *J. Physiol.*, 1964, **172**, 383.

Kennedy, G. C. Mating behaviour and spontaneous activity in androgen sterilized female rats. *J. Physiol.*, 1964, **172**, 393.

Landon, D. N. and Williams, P. L. Ultrastructure of the Node of Ranvier. *Nature*, 1963, **199**, 575.

Longmore, D. B. and others. Comparison of materials for repair of cardiac defects. *Thorax*, 1964, **19**, 454.

Macdonald, I. Dietary carbohydrates and lipid metabolism. *Nut. Rev.*, 1964, **22**, 257.

Meadow, S. R. No thanks; I'd rather stay at home. *Brit. med J.*, 1964, **2**, 813.

CHANGE OF ADDRESS

HARVEY.—Sheelagh (née Phelps, S.R.N.) Warren Harvey, M.R.C.S., L.R.C.P., F.D.S., 86, South Beach, Troon, Ayrshire. Tel. Troon 1714.

BIRTHS

ASHKEN.—On 2nd October, in the Middx. Hospital, to Iris (née Platt) and Michael Ashken, a son, Peter, a brother for Sharon and Ian.

LAUTCH.—On October 14th, 1964, to Henry Lautch, L.R.C.S., B.M.(I.) and Elizabeth (née Bates) M.B.B.S., a son, Richard Henry, a brother for Peter.

MITCHINER.—On 6th November, 1964, in Mount Alvernia Nursing Home, Guildford, to Rosaleen (née Hawkins, S.R.N.) and Michael Mitchiner, B.Sc., M.B., B.S., a son, Christopher John.

NEALE.—To John and Lois, a daughter, Claire, on 26th July, 1964, a sister for Heather.

O'SULLIVAN.—On October 4th, 1964, at the London Clinic, to Margaret (née Gates, S.R.N., O.N.C.) and Nigel O'Sullivan, a daughter, Anna Teresa Lindsay.

MARRIAGE

HARVEY.—On November 7th, 1964, at Portland Church, Troon, Ayrshire, Janet Harvey to Eldon Gee.

DEATHS

LYSAGHT.—Arthur Connor, F.R.C.S., Eng., of Nant Fawr, Lisvane, Cardiff, on November 11th, 1964, in the Cardiff Royal Infirmary, where he was the Senior Surgeon.
(Obituary in future issue)

Christmas Cards

are **NOW** available.

The usual selection of Guy's Christmas Cards together with a few new designs are on sale at the Gazette Office.

We would like to take this opportunity also of reminding readers that etchings of Hospital views and other useful small gifts for Christmas are also on sale as usual.

Call at Gazette Office 16 St. Thomas St. and look through our range of WELCOME GIFTS

GUY'S HOSPITAL GAZETTE

Vol. 78
No. 1993
fortnightly
one shilling

12th December, 1964

Christmas Issue

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Editors *B. H. Hicks*
P. Bowden

Sports Correspondent *N. J. Knott*

Guy's Hospital, London

PASSIM

Greetings are so Seasonal

Many things to many people. A cliché that sums up Christmas as perhaps no other description. Whether spent at home or among strangers, abroad or in hospital, the many facets of this season are all about us, the atmosphere of goodwill, the tradition, the carols, the gifts, the tinsel. If, as a cynic might remark, some of all this is worth little more than the paper it is wrapped in, none can deny that underlying spirit which warms all but the stoniest hearts. Call it goodwill or simply friendship, this spirit is yet the essence of all that is good in Christmas.

Guy's will celebrate in the usual grand manner, and each of these facets will be well in evidence for those few days from Eve to Boxing. There will be gay decorations in the wards, choirs singing carols, shows playing, alcohol flowing, tobacco fuming,—and that something else, even more important. There will be a new atmosphere of friendliness and welcome, a different set of attitudes that will be only too transient. Then we will dismiss all this as part of the frivolity, and put it away with the tinsel and balloons for another year. And a chance will have been wasted.

While we pride ourselves on our achievements, our advances in treatment, the excellence of our research, the quality of our teaching, do we tend to forget the other aspect so basic to our hospital's good name? Thomas Guy founded this hospital for one reason only, to take care of "the incurable sick" rejected by others, a motive of simple charity. His hospital is still here to befriend the sick, as well as treat their particular ailment or discover new ways of curing it. These other elements of progress are vital to the standard of medicine, but our patients know us better for our spirit. Or we hope they do. When this Christmas passes, cannot its essence persist? Nothing would be lost by a little more friendliness on some wards in the hospital, and much gained. The man or woman in the bed, at any time of the year, needs our smile and our friendship as he or she needs our therapy. Thomas Guy would have wished us to ensure they receive it.

In a spirit of hope, we wish you, whether very much *in* Guy's or a thousand miles hence, a joyful and friendly Christmas.

For Whom the Bell Tolls

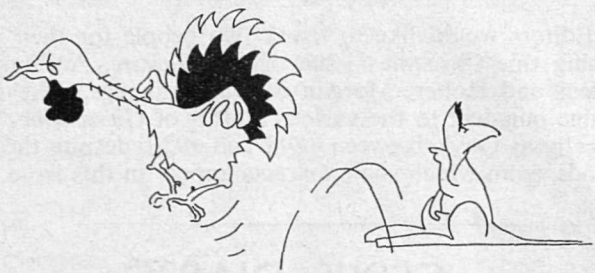
As our Society advances both economically and socially, it leaves behind a section of the community who do not share the general well-being. This group comprises misfits, vagrants and, unfortunately, the old. While the majority reap the benefits of the technological era, a few become more isolated and solitary. The prevalent social system condones the severance of family ties and parents become a liability, to be hidden or forgotten or put into a home. The problem of the old begins in the family and it is here that the change has to occur; it must become a disgrace to unload one's parents onto the state. The solution lies no more in a deferred pension rise than it does in uprooting them from their homes. Many will spend Christmas without company,

celebration or coal, some will even die alone. Others are fortunate and gain admittance to hospital, which costs the taxpayer thirty pounds a week. Surely the money would be of more lasting benefit if spent on the homes and services of the people in need.

Hospital beds are also filling with men and women who, although not old, remain homeless and outcast. They succumb to acute disease and are admitted to hospital, where they are patched up to return to a hostel which provides neither comfort nor hope for the future. To judge them is the epitome of complacency and so say that it is their choice or ignore their presence, only serves to placate the uneasy conscience. In a big city in winter the sorry plight of these people is made more obvious and what is needed is a change of mind, to hand over ten shillings with a sympathetic smile is an act of dubious intent. Some are strong, some weak, some fortunate, others not, and most people grow old. As alcoholics, psychopaths or simpletons they are doomed to senseless wandering, searching for a drink, a bed or a warm place. They are becoming the chancre in the flesh of the welfare state. John Donne : "*Any man's death diminishes me, because I am involved in Mankinde; And therefore never send to know for whom the bell tolls; It tolls for thee.*"

Turkypnosis

Almost gleefully *The Times* reported from New York that an American doctor was suggesting *precapitulatory turkypnosis* for all those turkeys to be slaughtered for Christmas (our italics, in fact our words). The intended effect is humane anaesthesia for that ultimate glorious moment in the turkey's history, when it is to meet its appointment with destiny, and finally fulfil the *raison d'être* of its stuffed existence. Technically, the bird's head is held to ground, soft words are murmured into its ear (they have them, apparently), and a straight chalk line is drawn away from its beak. It should then go to sleep.



This may do no more than suggest to you an economy on pre-operative Pentothal, but there is yet another virtue. Faced with violence, the average turkey feels anxious, apparently. Adrenaline is released, naturally. The meat gets tougher, palpably. Thus the mesmerised turkey is theoretically more tender on the plate. While the therapy is confined to "chattin' up the birds" we raise no objections, but we await the doctor who suggests Librium t.d. However, the next turkey seen in Out-Patients is to be treated with respect; it may be on its way to higher places—(at table, of course).

When the Physical Society called a meeting of "all" medical students, few expected the full turnout that last week packed the Anatomy Theatre with over 150 people. The main subject under discussion was medical training, and a Student Committee on Education was elected. Initially, the Committee is to examine the B.M.S.A. report and its relevance to this school, and also consider any problems of medical education peculiar to Guy's. Besides refuting the tired remarks about "student apathy", the meeting was impressive for its responsible conduct and management. Responsible opinion at student level will surely assist in the planning of Guy's education, and possibly improve it.

Continuing a tradition of pre-eminence, Guy's dentists now claim a new honour. Surgeon Rear-Admiral (D) W. L. Mountain has been appointed Director of the Naval Dental Service (a post which has been occupied by a Guy's man on four out of the last five occasions). He succeeds Surgeon Rear-Admiral P. S. Turner.

The British Medical Students' Association have also gone Guy's this year, and no less than three posts on the executive are occupied by Guy's men. President is Hugh G. Sturzaker, chief thinker behind the B.M.S.A. review on Education; Stephen Robins is Vice-President and Director of Publications. At a quick count Guy's now has some four Presidents within its walls, ranging through Surgeons, Radiologists, the Medical Society, B.M.S.A. And *almost* the obstetricians.

The tragic death of Dr. Thomas, late Lecturer in Anatomy, will be deeply regretted by many at Guy's. Our sincere condolences go to his relatives and many friends.

The Editors would like to thank two people for their assistance in producing this Christmas issue of the *Gazette*, Anthony Raynes for his ideas and Robert Morgan for the drawings. We must also acknowledge our debt to the various editors of *Guyoscope*, published spasmodically at Guy's between 1898 and 1920, despite the strictures of The Gods, from which some extracts appear in this issue.

GUY'S DIARY

DECEMBER

EXHIBITION.			*Amputations*
14th	M.	1.00	Dr. FORMAN. Clinical Lecture.
17th	Th.	5·00	Neurosurgical Round. Clinical Theatre. Conducted by Mr. MURRAY FALCONER. Clinical Theatre.
17th	Th.	1.00	Dr. HARDWICK. Clinical Lecture. *Myxoedema.*

There will not be a Departmental Round or Clinico-Pathological Meeting in December.

Time Table of Events at Guy's Christmas, 1964

FRIDAY, DECEMBER 11TH,	
7.30 p.m.	Carol Service in the Hospital Chapel (Christian Union).
MONDAY, DECEMBER 21ST,	
8.45 p.m.	Service of Carols and Nine Lessons in the Hospital Chapel.
TUESDAY, DECEMBER 22ND,	
6—7.30 p.m.	Carols by the Southwark Cathedral Choir: Party A: Hunt's House, Nuffield House and York Clinic. Party B: New Guy's House.
TUESDAY, DECEMBER 22ND,	
9 p.m.	Free Church Communion in the Hospital Chapel.
WEDNESDAY, DECEMBER 23RD,	
4 p.m.	Dressers' Teas and Ward decorations.
THURSDAY, DECEMBER 24TH,	
Christmas Eve.	
4 p.m.	Dressers' Teas and Ward decorations.
11.30 p.m.	Midnight Eucharist in the Hospital Chapel.
FRIDAY, DECEMBER 25TH,	
Christmas Day.	
6—7 a.m. .	Nurses' Carols in the Wards.
7 and 8.20 a.m.	Holy Communion, Hospital Chapel.
7.30 to 8 a.m.	Nurses' breakfast in the Nurses' Home.
10.30—11 a.m.	Morning Service, Hospital Chapel.
12 noon.	Patients' Christmas Dinner.
1—2 p.m.	Resident Domestic Staff Dinner in Tabard House.
1 p.m.	Nursing Staff Christmas Dinner in Wards.
3.30—4.30 p.m.	Patients' and Staff tea in Wards.
7.30—8.30 p.m.	Nurses' Supper in the Wards, at the Sisters' discretion. All Day Nurses off duty and out of the Wards by 8.45 p.m.
9 p.m.	The *Christmas Show* in the Physiology Theatre.
SATURDAY, DECEMBER 26TH,	
Boxing Day.	
9 p.m.	The *Christmas Show* in the Physiology Theatre.
1965.	
WEDNESDAY, JANUARY 6TH,	
7 p.m. for 7.30 p.m.	Sisters' Dinner in the Nurses' Dining Room.
WEDNESDAY, JANUARY 13TH,	
7 p.m. for 7.30 p.m.	Staff Midwives' and Staff Nurses' Dinner in the Nurses' Dining Room.

UNICEF

Professor D. J. ANDERSON

No one needs to be told of the frightening problems of malnutrition and downright hunger facing millions of people in the world today. Reactions to it vary from individual to individual; one will say it is a world problem so vast that only governments can tackle it; another will say that help from advanced nations will only make things worse by encouraging further population increase. Whatever opinions may be bravely aired in the comfort of a common room or across a pint of beer, there can be few people who, were they faced with a hungry child, would harden their hearts and tell the child that he ought not to have been born. It is for children that UNICEF, the United Nations Children's Fund, is in being.

In its early days, just after World War II, UNICEF performed an emergency function in providing food, clothing and medicine for the devastated countries of Europe and the Middle East. About £40,000,000 were spent and 500,000,000 lbs of food distributed. More recently its work has been directed to raising the living standards of children in developing countries not solely by gifts of food, though these may be necessary from time to time if floods or drought ruin

the harvest, but by nutrition projects. These long-term programmes are designed to help people to help themselves and are obviously more logical and less degrading for the people concerned than gifts of food. UNICEF advises in the preparation of programmes, the training of national personnel to carry them through and it supplies tools and equipment to operate them. In this way it is hoped that the young people will begin to solve their own nutritional problems.

Various schemes for providing nutritional education and increasing local food production are in operation all over the world and we at Guy's are making a contribution to one of these projects in the Uttar Pradesh State of India. This is the third scheme of its kind in which UNICEF has been associated with the Government of India. Two have been in operation for some time in neighbouring states and a fourth is planned for Madras. Malnutrition is often the result of ignorance and social prejudices and UNICEF workers have already done a great deal in nutritional education in schools, youth clubs, women's clubs and among village leaders. People are instructed, for example, in better methods of cooking rice, and the advantages of green vegetables. This educational approach is supported by instruction and assistance in vegetable and fruit growing, popularised through school, community and kitchen garden schemes. UNICEF wisely directs much of this effort to children, whose fascination for something which has grown as a result of their efforts is universal.

In the Gorahkpur district of Uttar Pradesh there are 7,000 kitchen gardens for which UNICEF is supplying tools, seeds and fertilizers. Since 1961 over 4,000 lbs. of seeds and more than 500,000 fruit plants have been provided. Of course, there have been, and still are, serious difficulties. Growing vegetables has always been considered an activity for low caste people but in a recent report from UNICEF it is stated that this taboo has been completely overcome, and the gardens scheme is considered to be one of the most successful projects.

Poultry keeping and fish culture are two valuable activities which can improve the amount and quality of protein in the diet. Again, especially in poultry keeping, social taboos have hindered progress but whereas in 1961-62, 320 poultry keepers were trained, the number rose to 800 in 1963-64, and the number of chicks hatched increased from 1,300 in 1961-62 to 19,000 in 1963-64. Tanks and ponds are being stocked with young fish and in this area progress is impressive.

These are some examples of what is being done in the face of social difficulties, climatic problems and the lethargy of people ground down by poverty and hunger.

Of course, it is easy to snipe at these efforts. It is said that the governments concerned are not interested, that materials fall into the wrong hands at the receiving end, that UNICEF and similar organisations carry vast staffs which swallow up funds in extravagant administration. UNICEF only supports schemes for which the local government puts up matching funds. UNICEF supervises shipment, trans-shipment, delivery and utilisation of materials. UNICEF administrative costs are about 8 per cent of the total budget, a figure of which no organisation need feel ashamed.

According to UNICEF, of the 600,000,000 children in the developing nations today, two out of three go to bed hungry. Suppose the estimate is wrong, and there are not 400,000,000 hungry children, but 40,000,000, or 4,000,000, or even a mere 400,000. Whatever the figure, it is too large and whatever we can do is not too small if it is effectively canalised.

So far, the contributions at Guy's have come mainly from the academic staff, and during the past year £315 18s. 5d. has been sent to the United Kingdom Committee for UNICEF. This is very satisfactory, but as yet only a small part of the Guy's community is involved and many more, particularly students, would probably like to participate. If this brief survey strikes a note of interest in anyone not yet involved in the Guy's scheme, I shall be glad to provide further details.

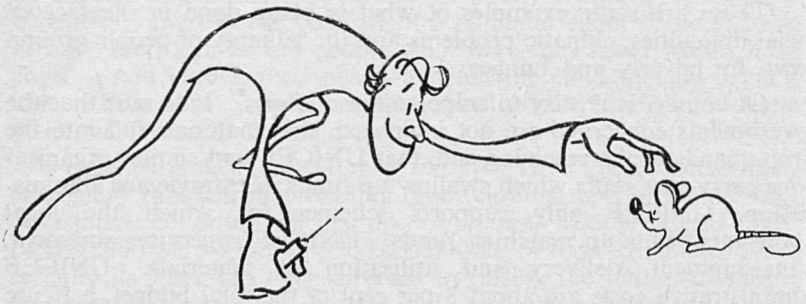
NOTICES

Guy's Hospital Music Club

The Music Club are performing Haydn's *Creation* in Southwark Cathedral on Tuesday, 15th December, 1964, at 7.45 p.m. Many will remember last year's performance of " The Messiah", and it is hoped that this year's production will be as well supported. No tickets are required.

Catholic Society

On Monday, 14th December, Professor C. E. Dent (Professor of Human Metabolism at U.C.H.), will give a talk on the subject, " Human Experimentation". The meeting will be held at 5.30 p.m. in the New East Wing, and will be followed by questions and discussion. Anyone who is interested is invited to attend.



Lament of a Psychiatrist's Wife

I never get mad, I get hostile,
I never feel sad, I'm depressed,
If I sew or I knit, and enjoy it a bit,
I'm not handy, I'm merely obsessed.

I never regret, I feel guilty,
And if I should vacuum the hall,
Wash the woodwork and such,
And not mind it too much—
Am I tidy? Compulsive is all.

If I can't choose a hat I have conflicts
With ambivalent feelings toward net,
I never get worried or nervous or hurried,
Anxiety, that's what I get.

If I'm happy I must be euphoric,
If I'm frightened right out of my wits,
If I have a good time, like writing this rhyme,
I'm manic or may be a schiz.

If I tell you you're right, I'm submissive,
Repressing aggressiveness too,
Should I disagree, I'm defensive, you see,
And projecting my symptoms on you.

I love you, but that's just the transference,
With Oedipus rearing his head,
My breathing's asthmatic, just psychosomatic,
A fear of exclaiming, "Drop dead".

I'm not lonely, I'm simply dependent,
My dog has no fleas, just a tic,
So if I, like a cad, never mind, just be glad,
That I'm not just complaining, I'm sick.

PAUL SMITH

Pre-Clinical Dilemma

He spoke in terms I did not know
Of structures that he did not show,
That passed from depths I'd not explored
To places previously ignored,
He talked of nerves that did arise
From parts quite hidden from my eyes;
They traced a course I did not care
To parts I never knew were there—
Such words I trust one seldom hears
Within a lady student's ears.
And when the class had staggered out
Too dazed to speak (and too devout)
I lingered on the words I knew,
I counted up the fearful few,
And found, alas, they were the same
That I possessed when in I came.

ANON.

(Taken from Guy's Hospital Gazette Vol. LXI, Page 358, 1947)

A Winter's Tale

The old man walked to the door and stood looking at the wedge of light by his feet, the world outside was insinuating itself into his environment. The glint of the brass knob caught his eye, it was so shiny and he knew that, although it was cold and slippery, it was a beautiful and business-like thing. He opened the door and slowly removed the key from the ring; it was difficult because his nails were short, making him feel clumsy and claustrophobic. He left the key in the lock on the inside of the door which he slammed behind him. He thought how inconsequential was this particular door's slam and although exteriorly it looked solidly forboding and showed off his nameplate well, it hadn't a good slam—it ate at his heart.

Outside it was cool and a few people were still anting their way home, he felt alert and immensely perceptive as though man's experience had coagulated to precipitate him. He walked along the yard and beneath the arch where his premises ended; he did not exist beyond this spot, it marked the limit of his being.

The Mitre's bar was full of false, hysterical laughter, pleasure bought by the pot. He walked past and then stopped and put his hand to his chest, the old fingers crept down the lip of the pocket and slid out with a pound note. He walked back more quickly and pushed his way authoritatively to the bar, it was very smoky and his eyes watered and stung. He went without drinking his brandy and by the glass he left his change. He wished that he was used to drink for he would have got drunk, his sobriety was out of fear, to him the virtuous were those who feared most. He didn't know where to go so he walked along the river towards his home. This he liked for he felt a strange affinity with its integrity and purposelessness, seventy-two years without purpose, seventy-two. The revolving tinsel in the Mitre had also been ineffectual except that it drew his eyes from the pathetic, bloated faces arrayed in circles, clutches of companions, around him. Along to his left, the cathedral's bells reached his ears and he hated them for they were imposed on him and he had to listen, without alternative, it would put him off God for ever, he thought, the chimes held the water and spun and clanged in his heavy lobed ears. As he stared into the sky, curls of hair covered his coat's collar like claws.

He leant his old man's elbows on the riverside wall and muttered of things past and beyond him, he spoke a great soliloquy to the river, it was great in that it was unheard; out of his barren mouth he stuttered words like a youth justifying his failure and an old man preparing to die. That Christmas was nothing to him and he wondered at those people to whom it was all, whose desire to give was doomed to fail by their lack of means. The uselessness of words moulding the limits of expression, completely beyond any starting point, illogical logically and yet a logic unto themselves. Creating an orange out of a sponge or a God of a man. He felt contained in a great flat bowl with a slimy gradient reaching out towards its edge like his wizened hand licking out to his wallet to satiate his sense of being; fact, money was

fact. The eternal passage of memories through his mind bewildered him, they were not dulled by usage, still as sharp as ever. The water was going nowhere and yet he was certain of its purpose in spite of its jealous uncertainty, withdrawing itself unto itself like God calling his lost souls. He would have loved the snow to have fallen just then and never again. He vowed to the river that if snow fell he would stand there, single, and become snow himself, intermingled. They would only find the gutters of cloth where his warm tears had melted the snow.

He walked on again with his palm scraping along the river wall until his hand struck a stone which, he saw, cast a shadow like a sphinx's face from the wall to the cobbles. He thought of his wallet. He picked up the stone and, holding it to his chest, continued along the riverside to the bridge where he laboriously stooped to pick up three more. As he straightened himself a shudder ran through him and he noticed the moon behind the gathering clouds, it appeared Apocalyptic. It grew and stifled him, enveloping his whole entity in its smoky neon light. He felt warm, the moon vanished and he became cold again. The stones were heavy to carry up the steps and he left puffs of white breath behind him all the way up the steps and the side of the bridge and along to the top, everywhere was still now.

As one grew older, he knew, one no longer wanted Utopia, it only existed for youth. He took out his wallet and split the money into four lots, under a stone each was placed, at evenly placed intervals along the parapet. He walked back and looked at the piles—they didn't look like money from where he stood. He fastened his coat's top button and lifted his right knee onto the parapet, his shoe scraped up the wall, ruining its polish. He pulled himself up until he was sitting astride the wall, the little mounds of money were still there. His face became tense and his lips curved like a sickle's arc; he heard nothing, waited, then swung his left leg over onto a small platform. He felt breathless now, but not tired, the way on was before him.

Slowly he let himself down the ladder and rung by rung he neared the river until he reached a concrete landing at the bottom of the steel steps. Here he sat facing the river, with his tired head resting in one dirty, wrinkled palm, he contended with many dissolutions, he felt as if he were falling.

His world had been built of acorns and cockleshells and his strength was his integrity, his success had been his exploitation of others gullibility. He felt as if he were travelling along a way in which he was the only light, completely dark but for an aura of his presence. Slowly a noise that began as an idea, became reality to him and he felt the throb of an engine. His eyes never opened and yet he saw a boat approaching. His consciousness became attenuated. He began to be aware of himself and his predicament and he saw himself crouching, huddled up and inhuman. He saw the boat stop a few feet from where he sat and he saw people picking up the old man, himself, and lifting him into the boat. He saw that they laid him down, and that he did not move. It was all quite peculiar. He turned towards the sea and they also took the old man that way.

PAUL BOWDEN.

the GAZETTE GUIDE to your future

Select (a), (b) or (c) as being the nearest to your reaction in the circumstances, and then refer to page 584 to see how rosy or dim your future looks.

1. **When you are offered a cheque by a grateful patient**
do you :
   (a) keep it?
   (b) return it?
   (c) re-admit the patient?

2. **When you accidentally set up an intra-arterial drip**
do you :
   (a) remove it and pray?
   (b) measure the blood gases?
   (c) go on holiday?

3. **When your consultant's wife asks for your advice**
do you :
   (a) giggle?
   (b) take her out to dinner?
   (c) take *him* out to dinner?

4. **When your best friend gets the job you wanted**
do you :
   (a) congratulate him on his good work?
   (b) congratulate him on his astonishing good luck?
   (c) get drunk?

5. **If you are passing and a street accident occurs**
do you :
   (a) watch?
   (b) replace the Keep Left sign?
   (c) lie there and bleed?

6. **If you hear three foetal hearts**
do you :
   (a) order more orange juice?
   (b) tell the guard to stop the train?
   (c) break off your engagement?

7. **When you diagnose Kartagena's syndrome**
do you :
   (a) shout Eureka?
   (b) ask the lab. for Kartagena antibodies?
   (c) try steroids?

8. **If you find an imperforate hymen in a women of 65**
do you :
(a) faint?
(b) write to the "News of the World"?
(c) do a rectal?

9. **On finding a Virchow's node on self-examination**
do you :
(a) tell your best friend (who got the job)?
(b) apply to the D.X.T. unit?
(c) give up sugar?

10. **When caught in the sluice with a nurse**
do you :
(a) watch her flush?
(b) pull the chain and pay £5?
(c) say you heard three foetal hearts?

11. **If your Registrar fails membership, again,**
do you :
(a) recommend the Army?
(b) give him back his glasses?
(c) switch on his respirator?

12. **On the night of the firm dinner**
do you :
(a) exchange merry jokes with the consultant?
(b) pass round your marihuana?
(c) introduce the consultant to the firm?

13. **When answering a night call to Casualty**
do you :
(a) reply "Matron's Office"?
(b) go back to sleep?
(c) get her to answer?

14. **If you enjoy a spit dinner**
do you :
(a) consult a psychiatrist?
(b) reduce your dose of Librium?
(c) write the case up?

15. **If your Consultant looks cyanosed**
do you :
(a) breathe in his face?
(b) leave him lying there?
(c) recommend a new cosmetic?

CRIME IN THE NIGHT

Sensational Report! Exclusive!

The rain beat against the windows in fitful gusts. The angry wind howled round the house and made every shutter creak. The cathedral clock had rung out the midnight chime. All through the livelong day I had

Not spoken a word

to any living creature! indeed, for the last six months I had done little else but drink and sleep, and in accordance with my usual custom, I had retired early to rest. A bottle was on the table by my side. Such was my craving that to go through the long night hours without drink was a physical impossibility. After some hours' restless, uneasy sleep,

I awoke with a sudden start

A pale uncertain light was flickering in my room. A strange, indescribable premonition of something about to happen came upon me. My head was bathed in sweat. The feeling of uncertainty and utter helplessness was terrible, for I knew that I could not have moved a yard

To save my life

I felt compelled to cry out. Already I had opened my mouth, when I caught sight of a draped and moving form which

Held me spellbound

As I watched, the figure crept stealthily up to where I lay, leaned over me and gazed at me with a curious expression of unrest. Then, as quietly, glided towards the table upon which my bottle stood. With hands as silent and

Remorseless as death

the draped figure poured some white fluid into the bottle, and then slowly and carefully added some clear crystals. Again, with relentless calm, the form approached me. In a flash I realised that I was going to be forced

To swallow the prepared drink.

With a mighty effort I threw off the spell of horror, and broke into frantic screams,

But no help came.

"For Heaven's sake, give it him quickly and stop those cries," said a hoarse voice from the dark. Already the neck of the bottle was

Between my lips

Again I struggled violently, furiously. I moved my arms, but they were powerless. I kicked wildly. I resisted with all my might.

It was hopeless

What chance had I, a six months' baby, against my nurse?

(Extract from **Guyoscope**, 1906)

STOP PRESS!

As we go to press, we hear that China has declared war on America. (South London Press please copy.)

TWHICH

Consumer's Guide to Doktors

When our team of investigators set out on this enquiry, they bore in mind a number of basic points, in particular that your first choice of doctor is likely to be your final choice. This commonly applies if the doctor is a bad one. They therefore paid special attention to qualities such as durability and ease of servicing. Essential accessories, such as stethoscopes, half-glasses, etc., rarely add significantly to the retail price, and are usually fitted in the early stages of manufacture.

Design Appearances in this field are often deceptive, and some of the least beautiful machines are surprisingly efficient. In general, "surgeons" show a superior external finish, but many of the "physician" brand would grace any dining room. "Psychiatrists" may provoke conversation, but will not suit more traditional decors. Prolonged use affects appearance less than might be expected, and most running faults develop internally if at all. Hair, spectacles and carnations are more frequently found on "medical" types, but have little proven effect on performance.

Reliability Most brands stood up to these tests well, though many of the " surgical registrars " were showing signs of dehydration after some 50 yards. This same brand, however, scored well in tests of bouncability and seaworthiness. "Physicians" tended to explode on impact (unless buffeted by "medical registrars", as per normal), and a number collapsed on being brought near a sterile test scalpel. Desensitisation of such models often achieved excellent results, and some were wholly converted. They were then undistinguishable from " gynaecologists ", who will not be discussed in this survey while their classification is in doubt. (The " psychiatrist " under test was in a fugue, and did not score. Certainly unreliable).

Turning Circle " Casualty registrars " performed poorly on this test, being 34% wider than the average.

Safety The safest brand on test was undoubtedly the "obstetrician", but our male testers suffered occasional embarrassment; this group may need intensive re-training for home use. The "psychiatrist" was shown to have negligible effect on life expectancy, but was occasionally dangerous in the presence of other brands. "Surgeons" were responsible for occasional accidents to bystanders, but rarely to their own consumers; and *vice versa* for "physicians". Dangerous situations could be controlled in most instances by immediate swamping in flattery, but this should not be relied upon.

Servicing All brands function better when filled at regular intervals with top-quality fuels. Housemen will be found useful for greasing nipples, but little else. Students are on the whole corrosive, and better ignored. In most models servicing is no problem and fluid readily absorbed; polish is retained and often improves with age. Rust was a more common problem among " physicians " than "surgeons", and least common among " thoracic surgeons."

The "registrar" brand is advertised as rustproof, but our testers were unable to verify this completely. Regular attention is the only guarantee.

Value for Money Excluding Karley Street and Heat's House, prices were standard, and we therefore compared products in terms of weight, m.p.g., and output.

(1) *Weight.* Other than the " Casualty Registrar " brand already mentioned, weights were moderate, but inclined to be heavier on the "surgical" side. Accordingly, value as shillings per ton reflect more favourably on " surgeons " and " surgical registrars."

(2) *M.P.G.* All " registrar " brands showed high figures for consumption of fluid, and some more expensive brands were found to consume surprising quantities of high-octane fuels. Function was not affected until overflow occurred.

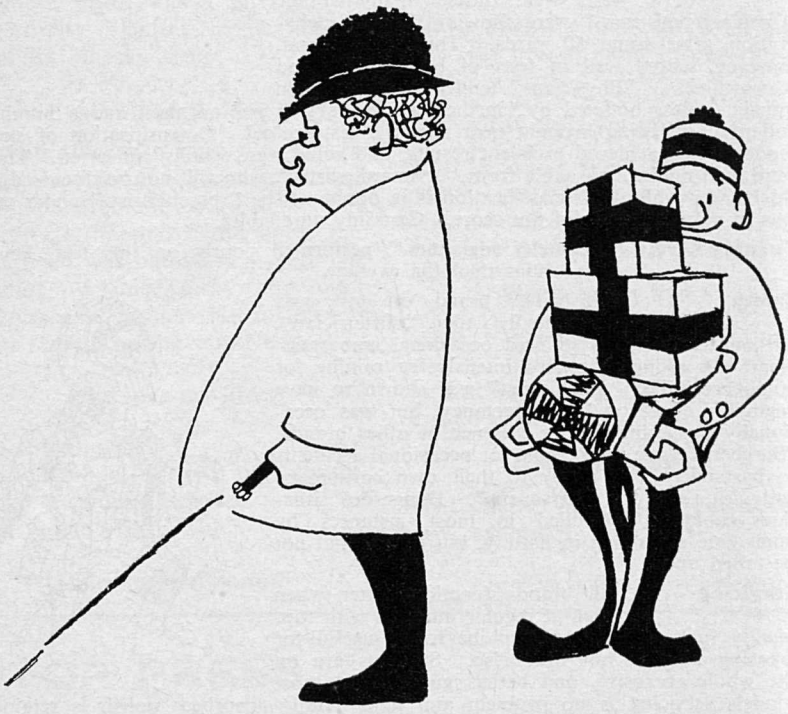
(3) *Output.* In general, excessive.

BEST BUY

On this survey, the scores were:

Radiologists, 3 lemons, 4 ducks and a cow.
Pathologists, 2 lemons, 15 ducks and half a cow.
Ornithologists, 6 lemons, 0 ducks and seven cows.
Venereologists, 9 crab-apples, 7 ducks and a camel.

The Week's Best Buy : **B.M.A. booklet "Doctor's Orders" (for internal use only)**



Res Natura of Guy's

Southwark is not rich in parks or open spaces, indeed it has the least green space of almost any London borough. The tenacity with which birds, insects, and plants manage to survive in and around Guy's is surprising.

For fifteen years after the war, bomb sites in the City became highly specialised ecological niches for many plants and insects. Birds were drawn in by the rich insect life, the black redstart being the best known example. Now these sites are rapidly being built upon, and but for the levelled car park in front of New Guy's House, the scars of bomb damage will soon be gone from immediately around us. Black redstarts do not nest this side of the river, but the kestrel is a frequent visitor over the hospital. I have seen it hovering over Hunt's House, with all the pigeons and sparrows suddenly quiet. With insecticides decimating wild life in country areas, inner and suburban London form a sanctuary for some species, the kestrel among them. Other birds seen around the hospital hardly raise much interest, woodpigeons, house sparrows, the occasional crow, and at least two families of blackbirds, including one with some albinism. The London pigeon which is so common, is a polyglot species; rock dove, racing pigeon, fancy breeds such as fantail and pouter pigeons, all go to make up this ubiquitous bird. Even turtle doves are mixed in the ancestry, as seen by the brown feathers some of the pigeons possess. It is disappointing that there are no thrushes, chaffinches, or tits.

There are four splendid plane trees in the Park. This is sometimes known as the London plane, as it is so successfully resistant to heavy air pollution. The characteristic flaky bark enables the tree to shed some of its inevitably heavy accumulation of soot. The flower beds around the Park are so looked after that few wild plants get a hold. But by the car park, and in Crosby Row, ragwort grows, covered in July by the black and yellow larvae of the Cinnabar moth. The adults of this moth fly in June, and are common around the hospital, flying by day, and flashing crimson and black.

Of other moths noted, the most unusual has been a tiny Geometrid, known in English as the Least Carpet. In the whole of the British Isles this is known only from the North Kent coast round to Folkestone. As far as I know, it has never been taken in Inner London before. In July, 1963, a single specimen was taken in the hospital, in such fresh condition that it must have been breeding very close by. The English names of moths, mostly coined by Victorians, are fanciful yet descriptive, and some noted from Guy's include the Dot, the Gothic, the Garden Tiger (and its furry larva), the Lime Speck Pug, the Ermine, the Vapourer, and the London Beauty. Melanie forms of moths, resulting from the selective advantage of a dark mutant over pale typical forms on a sooty background, are particularly frequent in London.

TIMOTHY PEET.

IS IT TRUE . . .

1 . . . that Professor Robson owns a sunray lamp?

2 . . . that Lady Boland is appearing at the Design Centre?

3 . . . that the new Victoria Line will link up with the underground passages?

4 . . . that Dr. Stafford-Clark writes poetry?

5 . . . that there is a microscope in New Guy's House?

6 . . . that Sophie's Hostel was once a home for unmarried mothers?

7 . . . that Sophie's Hostel is now a home for unmarried fathers?

8 . . . that Dr. Hardwick wrote the script for "Lifeline"?

9 . . . that Mr. Lawrie is an expert at knitting?

10 . . . that consultants hold shares in the College Catering Company?

11 . . . that the Professor of Medicine failed Conjoint?

12 . . . that Professor Hunt owns a tower in a field?

13 . . . that the Works Department works?

14 . . . that Mr. Wass smokes?

15 . . . that Matron knows?

(*Answers on page* 584)

THE NEW MATERIA MEDICA

WOMAN.

Preparations.

1. Nurses.—Never infringed but largely wasted. A very popular preparation, generally taken by medical students—action most marked at night and at Christmas-time (sometimes leading to the browsing habit). To be taken scrupulously.

2. Barmaids.—Tincture—very lavish preparation. Strong affinity for peroxide. In excess—vertigo.

3. Ballet girls.—Powdery preparation. Dram(atic) doses.

4. Widows.—The drug is here in the nascent state and particularly liable to combine.

5. Shop girls.—Counter irritant. Dispensed by the yard. For cestoda.

(Extract from **Guyoscope,** 1898)

EXTRACTS FROM GUYOSCOPE

They were going over a case of acute rheumatism in a girl aged 16. "What is your treatment?" asked the instructor of youth. "I should put her to bed at once," replied the youth instructed. "Yes, but wouldn't it be better to tell her mother to do it?" asked the boss. And they agreed that perhaps it would.

Overheard in the wards:

PHYSICIAN (*stopping at a case of ? tuberculosis, to Ward Clerk, whose case it is*): Have you examined the sputum, Mr. X?

CLERK (*lying humbly*): Yes, sir.

PHYSICIAN: And did you find tubercle bacilli?

CLERK (*attempting to give non-committal answer*): Two little ones, sir.

All that suppurates is not a dresser.

American medical literature increases apace. We have lately been favoured with a copy of the "Uric Acid Monthly", and we understand that the following are in course of publication: "The Diabetic's Hourly", "The Prostate's Daily", "The Pyloric Obstruction's Weekly", "The Dysmenorrhoeic's Monthly", and "The Chronic Constipation's Quarterly".

It was a lady medical student who said that the incubation period was the period before pregnancy.

On January 10th, Mr. Alcock, the then Labour Member for the hospital, delivered his electioneering speech before an admiring body of supporters in the Externs' Room. We regret that we are unable to give the speech *verbatim*, as it was one of the finest things that even Mr. Alcock has ever delivered, but the policy he enunciated was broadly this:—Normal labour for the English, tongs for the Alien, and free food for the Externs. We would only add that we sincerely hope his successor will maintain these high principles.

Another *faux pas* by a Ward Clerk: "The patient has a swollen and very tender ankle, which he attributes to a wench".

A Child's Guide to Medicine

By Surgery we mean the art of human sub-division.
The Larger part goes back to bed, the Rest is an excision.
The 'cute Physician never makes a statement, short or long,
Of course he's very seldom right, but then he's never wrong.
A group of symptoms unexplained you label as Neurosis,
And this is rather clever, for you've made a diagnosis.
Some dignity, a dress of blue, a face somewhat sinister,
Add two flat feet, a folded towel, and then you have a ———.

the GAZETTE GUIDE to your future

No.	*Score.*			*Comment.*
1.	(a) 3	(b) 1	(c) 5	*Initiative is vital from the start.*
2.	(a) 1	(b) 5	(c) 3	*(a) looks imaginative, (c) is liable to rebound on you when you come back, (b) submerges the whole mess in research fever.*
3.	(a) 1	(b) 5	(c) 3	*It's one way of getting in with the family, and the poor chap will be nagged into a good testimonial, (a) is understandable, and unforgivable.*
4.	(a) 5	(b) 3	(c) 1	*You never know, he might put in a good word for you sometime. Yet there's some special satisfaction in (b) too.*
5.	(a) 3	(b) 5	(c) 1	*If (c), that's you done for. (b) shows a constructive frame of mind.*
6.	(a) 1	(b) 3	(c) 5	*Marriage* never *helps. (b) indicates the ability for rapid radical decisions.*
7.	(a) 5	(b) 1	(c) 3	*If (b) you dropped a clanger. (a) will do the least harm and advertises your skill.*
8.	(a) 1	(b) 5	(c) 3	*(a) betokens an unhealthy interest in this problem prone region, (b) betokens a healthy eye to the main chance—you must get your money from somewhere in this business.*
9.	(a) 1	(b) 3	(c) 5	He *won't help, the swine. The less logical you are in this situation, the more likely you are to survive, hence (c).*
10.	(a) 3	(b) 1	(c) 5	*(b) is too escapist, (a) too honest, and (c) ingenious.*
11.	(a) 5	(b) 3	(c) 1	*It's all less competition. (b) and (c) are defeatist, do the job properly if at all!*
12.	(a) 5	(b) 3	(c) 1	*Never relax on the way to the top. (c) may be necessary, but it's* very *tactless.*
13.	(a) 5	(b) 3	(c) 1	*(c) should* never *be admitted, even in a confidential quiz! (a) may even work—(b) probably won't.*
14.	(a) 3	(b) 1	(c) 5	*A purely hypothetical question, of course.*
15.	(a) 1	(b) 5	(c) 3	*Even* less *competition left for you!*

Analysis :

15—35 points. You are much too *nice* a chap to get right to the top, and when you are not too nice, you are too honest. You will make someone a marvellous husband, though.

35—50 points. There is still hope but you need a slightly greater dash of cunning and devilish ingenuity to really succeed.

50—75 points. You have the ruthless frame of mind to make it to the top and the charm to let no one realize it. But boy, you're sick!

ANSWERS—*IS IT TRUE ?*

1. False.
2. False.
3. False.
4. True.
5. True.
6. True.
7. False.
8. False.
9. True.
10. True.
11. False.
12. True.
13. False.
14. True.
15. Knows what?

FAST DEEP SURE and DESIGNED FOR THE JOB

XYLOTOX DENTAL ANAESTHETICS

are essentially different, in that they are specifically devised to meet the specialised needs of the dental surgeon; they do not represent a compromise between medical and dental requirements. That is why Xylotox remains today the local anaesthetic used by 70 to 80 per cent of British dental practices and is exported to between 80 and 90 countries throughout the world.

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CORRESPONDENCE

After "Even Further Back" . . .

Even Still Further Back

SIR, I think I can top most of your correspondents in far back memories of Guy's, and I should like to think that there are still plenty of old Guy's men and women who can share these memories with me.

In 1888, Dr. Cooper Perry, who had come from the London Hospital to Guy's as an assistant physician, became Dean of the Medical School. In 1890, he was appointed Warden of the College in Great Maze Pond. Between 1891 and 1892, as a very small child I stayed occasionally in the Warden's House, the small quarter allotted to Dr. Perry and his wife Caroline, née MacManus.

In 1892, Dr. Perry was appointed Superintendent of the Hospital in succession to Dr. Steele, and moved, first to the old Superintendent's House, and several years later to the Treasurer's House with its spacious rooms. As a little girl, I stayed often in both these houses on many cheerful holidays. I was sometimes sent on messages to old Mr. Williams, the clerk to the Treasurer. I was rather in awe of him as he stood gravely with his long white beard at the tall sloping desk.

For a few years from 1904, as a young girl, I lived with my Aunt and Uncle Cooper Perry, in the Superintendent's House. I often accompanied Dr. Perry on his rounds of inspection and came to know every corner of the Hospital, including the pipe subways, where, with the Perry's terrier, Bunch, I used to hunt rats. I met Mrs. Margaret Keogh, the famous surgery night nurse (there is a memorial tablet to her in the Chapel), and I met in my Aunt's drawing room many of the Guy's staff whose names are now legends. John Ryle and J. J. Conybeare were among my younger friends.

Mr. Tom Kirkland was the Consulting Engineer. He came to lunch each week after the House Committee. Mr. Saltmarsh was the clerk of the works, and even in those days Guy's had a works department that could tackle a wide variety of upkeep, renovation, or even construction. The hosts of starlings that infested the trees and roof tops in winter were a great nuisance. Dr. Perry, armed with a gun, used to shoot at them from the steps at the back of his house.

Music was strong then at Guy's. The Nurses' Choral Society, which I joined, and the Students' Glee Club used to give concerts under various conductors, including Mr. Clive Carey, and also under the watchful and critical eye of that master craftsman, and master musician, Mr. W. H. Trethowan.

The Casualty Department, called then the Front Surgery, was situated in rooms on the left off the Colonnade, and immediately at the top of the steps. From my window I could watch stretchers, police and hand-pushed ambulances arriving and walking patients on crutches, struggling up the inconvenient steps, helped by the Front Lodge porters. Much earlier, looking down, I had watched the first consignment of nurses going out to the Boer War; climbing into the four wheeled cabs, their luggage precariously stowed on top. Good-byes were waved, and they drove out of the Front Gates and South Africa claimed them.

In much later years, when I became Sister of Astley Cooper, my consultants were (to give them their proper names), John Dunn, Frankie Steward, Joey Hughes, David Coley and A. R. Thompson. Jack Sauer was the only surgical registrar, untiringly playing rugby and assisting surgeons by day, operating on many nights. He never seemed to rest, and was ever cheerful. I remember Mr. Dunn telling a man that when he was a student he used to ride up from Kent each Monday, stable his horse in the Borough and ride home again on Saturday. No swift week-end get away for him.

But I have travelled much too far forward. I must stop.

Yours, etc.,

MISS E. MACMANUS.

Terry Lodge,
Terrybawn, Bobeenaun, Ballina, Co. Mayo.

A Dietary Dilemma

SIR, In your last Passim you expressed sympathies to the student who is queue-tired, penniless, or still trying to find somewhere to park. Your kind thoughts are welcome to the gagged and handcuffed student.

With the trend of increasing restrictions to motorists, it is probably justifiable that no provision has been made for students or nurses parking, but one wonders if anyone has ever attempted to assess the extent of this problem. In the meantime, the student who wants to park in the hospital grounds is advised to either buy a Rolls or the hospital.

The East Wing cafeteria has now got the monopoly on student refreshment and meals. The student is obliged to take his refreshment within the opening hours of the cafeteria; between these times there is nowhere in the hospital where refreshments are available to him, to say nothing of what might happen to the quality or prices of food, which already leave much to be desired.

It is a shame that the new cafeteria, with its excellent facilities, should inherit the queue problem from the Spit. The bottle-neck appears to be at the till. The installation of a second cashier would ensure the smooth running of the service and give students a good chance of getting to a clinical lecture or a P.M. instead of wasting time, as I am doing, complaining about and standing in the queue.

Yours, etc.,

The Queue,
Guy's House.

TONY RAYNES.

SIR, In your last editorial you noted that since the opening of the colonnade, students have been excluded from the buffets in the out-patient and casualty departments, and from the new sandwich bar, while the Guy's shop has been closed. Students must now either find a meal outside the hospital at lunchtime, or else add to the congestion in the cafeteria, or buy sandwiches in the cafeteria before 11.45 a.m. A ten-minute break for coffee is now a thing of the past, as the walk to and from New Guy's House or even the medical school takes up that much time. The above points have been put to me by a number of people together with the question, "What is the students' council doing about it?"

During the week December 13th—18th, I will be in the cafeteria during lunchtime to ask as many students as possible what exactly they feel about this state of affairs, and whether they wish their student representatives to try to get it altered. Through your columns I would like to ask the student body to help me by having their answers to these questions ready, or, if unable to be in the cafeteria during the week, by leaving a signed note in the rack for me.

Yours, etc.,

DAVID A. RYLAND
(*3rd Year Medical Student Representative*)

Guy's Hospital, S.E.1.

SIR, Perhaps a word of explanation about the refreshment difficulties in the hospital might help some of your readers to understand why the Governors have had to limit the use of various canteens. The buffets in New Guy's House and in Out-Patients were installed to meet the needs of patients and their friends. So long as reasonable alternative facilities were not available, staff and students were also served, sometimes almost to the exclusion of those for whom the buffets were provided. Guy's shop served staff and others under very unsatisfactory conditions. The new sandwich bar was designed to replace Guy's shop and to allow non-resident staff in the hospital generally, and students in the hospital departments of Physiotherapy and Radiography to get light refreshments in comfortable surroundings. By taking every inch of available space it can still seat only 96 persons. There are approximately 1,400 people entitled to use it. If this amenity were open to medical and dental students, a further 1,000 potential customers would be added to the queues and inevitably some of the staff for whom it was intended would not be served.

Much as segregation is to be deplored, there appear to be good reasons for it.

Yours, etc.,

A. H. BURFOOT
(*Clerk to the Governors*).

Guy's Hospital, S.E.1.

"Operation Guy's House"

SIR, Through the *Gazette*, may I offer humble congratulations to all responsible for "Operation Guy's House." The details published in the recent *Gazette* were typical of the organisation and precision of which Guy's is capable. We hope that all who took part in the great move will have many years in which to enjoy their beautiful surroundings.

Yours, etc.,

FLORENCE TAYLOR.

103, Blackheath Park,
London, S.E.3.

Ang-na

SIR, In the last number of the *Gazette* I noticed a letter defending the short "I" in the word Angina. I think, sir, that I can satisfactorily authenticate the long "I" without laying claim to the vast erudition of the *Gazette's* correspondent. That gentleman satisfies himself that he has proved his case by quotations from Messrs. Plautus Trinummus, Serenus Eammonicus, and Lucilius ap Non (presumably a Welshman); but I think I can claim that the late Horace (I never heard his surname) is a more reliable authority than either of these. If the *Gazette's* correspondent will refer to the Second Odyssey of that poet and the 19th line he will find—

Quiquid id est timeo Danaos angina feventes.

This, I submit, is conclusive for the long "I." Or take the more modern poet, Anon; what could be more definite than the following:—

There was a young lady of China,
Who married a Lancashire miner,
But now I regret
Once more she's "To Let,"
For the beggar's snuffed out from Angina.

The gentleman rightly observes that there are only a few feminines formed with a short I. He might have noted further, that few are formed with a short tongue. Finally, to argue by analogy, I will undertake to say that if the *Gazette's* correspondent will take the trouble to turn over in his mind all the medical terms he knows having the same termination as the word Angina, he will find that the first word that comes into his head will exhibit the long I, not the short.

Yours, etc.,

GOTH.

Guyoscope, 1898.

OBITER DICTA

MR. HAYWARD: *Why doesn't anyone ever sit in the front row? Why don't they? I never ask any questions.*

MR. WASS: *If you've had a classical education, you would know that idiopathic means I-don't-know-and-I'm-afraid-to-say-so.*

WAITRESS (to Student): *I'll bring the coffee in a minute. I'm just making some more milk.*

WAITRESS (to Houseman): *Shut up or I'll spit in your soup.*

FROM THE SCHOOL OF NURSING:

"Syphilis is a venereal disease caused by lots of little trampolines in the blood."

"Another form of heat often used for sterilization is an alcove."

"Pregnancy will also relieve dysmenorrhoea, but this is not advisable unless the girl is married."

Dear Diedre

YOUR PROBLEMS ANSWERED

Dear Diedre,

Ten years ago as a junior nurse, quite by accident I administered the wrong drugs to a patient who immediately expired. In order to conceal my mistake I have been hiding the patient's body in the sluice and moving it to different cupboards at times when the decorators, etc., worked on the ward. Since then I have become a Sister, a position of responsibility and power.

Do you think I should suddenly discover the remains and show surprise, own up to my guilt or just continue chastising nurses for leaving their capes on the ward?

Yours truly,

DISTURBED SISTER.

Dear Sister—We all have our little problems at times. You must bear up and be kind to your patients and not too severe with your nurses.

Dear Diedre,

I am a nurse in the psychiatric wards of a large London hospital.

Last night a medical student made an improper suggestion to me which I strongly objected to. This morning a patient in the ward made the same suggestion. Do you think they are plotting against me?

Yours truly,

STARCHED AND WORRIED.

Dear Starched and Worried—Men often plot against women; it can be very exciting.—Diedre.

Dear Diedre,

I am a female medical student at a leading teaching hospital. On the ward rounds the consultant always directs his teaching towards me and has asked me out to dinner twice. He is a charming man but I think he might be too old for me. However, I am deeply in love with his houseman, who completely ignores me.

The registrar, who has also taken me out, tells me that I should humour the consultant as it would be good for my career and that I could also put in a good word for him. As much as I like the registrar I think that he is an ambitious man and schemes most of the time.

How can I make the houseman aware of my intense feelings for him without betraying the registrar or making the consultant jealous of his houseman?

Yours truly,

CLINGING FLAT HEELS.

Dear Clinging Flat Heels—There comes a time when a girl must cover her heart and look into the future. Humour the consultant.—Diedre.

Guy's Hospital Club's Union

The Annual Rose Ball will be held at the Savoy Hotel on Friday, 22nd January, 1965. The ballroom music will be provided by Tommy Kinsman and another star band.

Double tickets at four-and-a-half guineas will be obtainable from Mr. J. Goodliffe. Medical School.

SPORT

RUGBY FOOTBALL

Undoubtedly the most agreeable task is to congratulate Bill Treadwell on behalf of the Rugby Club and indeed all Guy's men who take an interest in the club, on being selected to play in the first English trial. He played in the cup-winning side of 1961, and now plays for the Wasps.

After a month in which Guy's won three of five games played, the team fared dismally against Streatham. The week's rains had made Honor Oak Park very muddy, and the game was dominated by some poor kicking and poor handling and passing of the ball. In the first half, in which they were rarely in the Streatham camp, Guy's scored a penalty and a try. The second half saw the situation reversed, and Guy's had the territorial advantage, but Streatham scored twice and won the game 9—11. The most disturbing feature of the game was Guy's inability to defend the line against the many attacks by the opposition, not from set positions, but after dropped kicks and dropped passes. Two of Streatham's tries came after such muddles on the line.

In complete contrast to this game, was the game against Exeter, which Guy's lost 13—17 after a creditable and very enjoyable performance. While the above criticism holds, it is only fair to say that the team is attacking with much more authority than it has been in the past two or three seasons. Too often the attack has consisted of long kicks up the touchline—the fact that Guy's are now consistently scoring two or three tries a game speaks for itself.

ASSOCIATION FOOTBALL

One of the more promising features to emerge, now that the season is well under way, is the number of freshmen who show undoubted ability and keenness. This is particularly encouraging, for many established first and second team members are playing their last season's football, at least, as far as Guy's is concerned. We have good reason, then, to expect that the high standard of soccer prevalent at Guy's will be maintained for some years to come.

The first eleven, as expected, are demonstrating their superiority over the other Hospitals. In the U.H. League they have played 5, of which they have won 4 and drawn 1, scoring 28 goals and conceding only 3. In the first round of the Hospitals Cup they easily defeated King's College Hospital 7—0, and look forward to retaining the trophy.

The second eleven are also showing good form. In the University Reserve's League they have played 7, winning 5 of these and scoring 43 goals against 10. They were unfortunate to be eliminated from the Reserves' Cup Competition early in the season before they were a settled side, and then after a close game, losing only 2—1.

Four or five men regularly represent the United Hospital's side, and one player, Elwyn Elias, has represented the A.F.A. side on two occasions. A good standard of football is being played by both elevens, and the club and its supporters have reason to be optimistic about the future.

HOCKEY

For the first time for nearly two years the first team has lost on two consecutive Saturdays. All four teams lost to Merton, although the third might well have reversed their result. Finding themselves in a losing position for only the second time this season, the first team fought back most encouragingly with only 10 men for most of the second half, and only in the last quarter-of-an-hour did Merton score two fine goals to put the result beyond doubt at 1—4.

Against Crostyx the first team played badly to lose 0—3, although the opposition were fortunate to score two lucky and one good goal within 15 minutes in the first half. The players are in a spell of having little confidence in each other. The team should be able to learn from the chances they give others: wing forwards are hard to stop if given the ball, especially when poorly marked;

and Guy's have proved on innumerable occasions that play down the middle is fruitless, especially when halves try and play forward as well and thus produce further congestion.

Perhaps, as with most sides, the main weakness is at inside forward (a weakness in the game itself?), and the transition from schoolboy to robust club hockey cannot be expected to be easy.

The 2nd and 3rd teams did well to win, Godfrey scoring a fine hat-trick for the latter.

Reports and Results

ASSOCIATION FOOTBALL

GUY'S v. INSTITUTE OF EDUCATION

At H.O.P. 5th December, 1964

Result: won 4—0

The Guy's team looked forward to this, the first round proper of the University of London Challenge Cup, with light-hearted confidence, for the Institute of Education were not highly rated, and an easy win was expected. The first twenty minutes or so of the game came as a rude shock to the Guy's side. They found themselves hard-pressed by a team which, though lacking the finesse and native ability of Guy's were certainly their equals, if not betters, in endeavour and spirit. It wasn't until mid-way through the first half that Guy's began to assert themselves and play to win. Cutler collected a pass from Poole and eluding the opposing centre-half scored a low shot. Now Guy's began to take over. The ubiquitous Powell-Jackson and rugged Davies, Guy's wing-halves, commanded the mid-field and fed the forwards well for the remainder of the first half. More goals were inevitable and again it was Cutler, displaying an opportunism reminiscent of that of last season when he scored more than fifty goals, who latched onto a shrewd pass from Davies and scored a fine goal. Then, shortly before half-time, Elias netted with a delightful chip that went over the head of two opposing defenders and the goalkeeper to drop into the net.

For some time after the interval the Guy's team were gripped by a strange apathy and were lucky not to concede goals to the Institute, who were now striving valiantly. Incessant rain was making the surface greasy, and mistakes were made. Pinkham was sound throughout this onslaught, and after about twenty-five minutes another goal clinched the matter. A corner-kick from Poole dropped into the goalmouth and Elias, rushing forward, pushed the ball past the helpless goalkeeper into the net. Guy's remained on top for the rest of the game, and so are among the last eight in the competition.

Team: R. Pinkham; P. Sheridan, V. Holden; P. Davies, J. Cochrane, J. Powell-Jackson; S. Poole, B. Mason, J. Cutler, E. Elias, A. Atkins.

PETER SHERIDAN

LADIES' LACROSSE

We should like to congratulate Wendy Higlett and Janet Hock on being selected to play for the combined Universities side.

In spite of a much depleted team, Guy's Ladies' Lacrosse Club made a good start to the season by beating Bedford College 10—1 on Wednesday.

Team: A. Baker, S. Bennett, S. Tate, D Wiggins, W. Higlett, J. Hock (3), C. White (1), A. Paynter (4), J. Simmons (2).

SWIMMING

In the University of London Swimming Championships, held in the Nuffield Pool at the London Union, Guy's retained their title of The Champion College. The Ladies took third place in their championship. The most outstanding feat of the evening was the triple champion form of R. S. G. Jones who won the Men's 110 yards Freestyle, Backstroke, and the Individual Medley events. Not content with this feat, he took third place in the 100 yards Butterfly and helped Guy's to places in the two relays—with a new record in the Men's Freestyle Relay.

Of the women, Janet Higgs was outstanding winning the Ladies' diving event from Jill Newman, a current international.

R. S. G. Jones' efforts were well backed by the rest of the team. B. H. Valentine took 2nd place in the 100 yards Butterfly and 3rd place in the 220 yards Breaststroke and Individual Medley events.

D. J. C. Barnes took 5th place in the 440 yards Freestyle, and K. McGlynn 6th in the 110 yards Backstroke.

In the Relay events Guy's came second in the 4 x 1 length Medley relay and won the 4 x 1 length Freestyle relay, breaking the record we set up last year.

The Ladies had a very hard match and did extremely well to take third place in the overall Championship. The best performance was that of Janet Higgs in taking the Diving Championship for the second year.

The Ladies picked up valuable place points in the individual events, which were won by the same people each time. The team strength of the ladies showed in the Medley and Freestyle relay, in which they came second and third respectively.

GOLF

Hospitals' Cup Final

GUY'S v. MIDDLESEX HOSPITAL

At Walton Heath

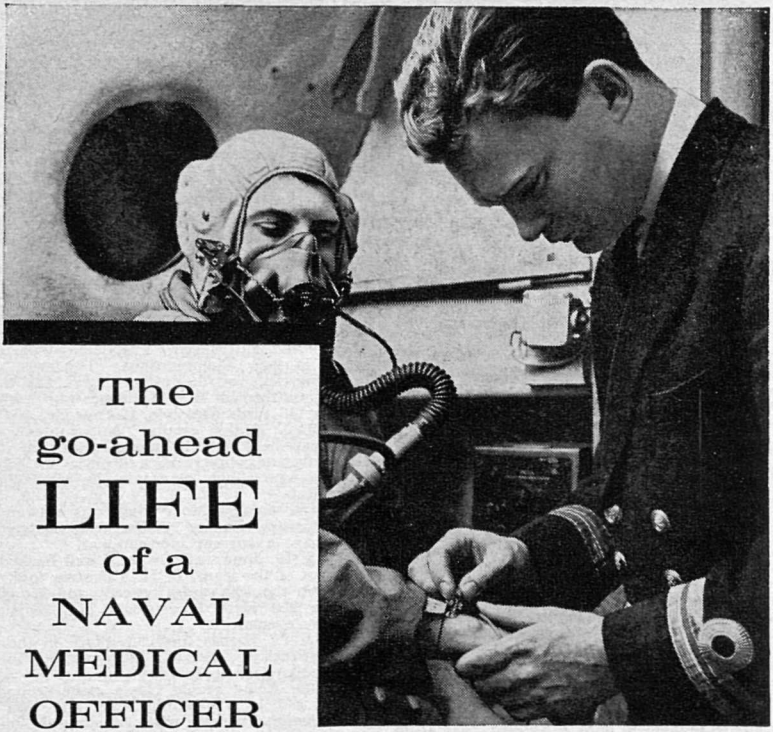
Result: won 3—2

D. Adams beat H. Loose 8 and 7.
A. B. Bevan-Jones beat T. Pryce 6 and 5.
M. J. Brammitt lost to J. Bridgeman 2 and 1.
E. S. Baird lost to R. Hickman 8 and 6.
V. G. Williams beat P. Boordillon 4 and 3.

The team was given its customary encouragement by Adams playing powerfully and putting devastatingly, and Bevan-Jones scoring very well in his calm, efficient way. Their matches soon finished out in the country, confirming our suspicions of a slight lack of orthodoxy in the Middlesex order of play.

Brammitt lost a good match to Bridgeman on the 17th, due in part to the opposition's predeliction for long and curling putts.

Baird, the Captain lost heavily to Hickman, but it must be said that he was carrying round as well as his club a pair of most unhealthy looking tonsils.



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The Medical Director-General of the Navy, Medical Dept. GO66/F, Empress State Building, London, S.W.6.

Williams, however, won the all important last match by a very re-assuring margin, thus consigning the cup to Guy's for another year.

Bevan-Jones, the present U.L. Captain, is to be congratulated on a most successful season.

Both Oxford and Cambridge Universities were played and defeated this season. Brammitt and Adams also played in the University team this year.

M. J. BRAMMITT

BOAT CLUB

UNITED HOSPITALS' REGATTA
Chiswick

Following almost one term continuous training, the Boat Club entered the United Hospitals' Regatta on Wednesday, 25th November, 1964, with an air of expectation, this being their first *trial of strength this season. Unfortunately,* owing to entry form delay, the Novice IV was not entered, and our Senior Sculler scratched at the last moment. However, Guy's entered the Junior VIII, a Rugger IV and a Junior Sculler.

The latter, Steve Gregson, beat the St. Bartholomew's "A" Sculler convincingly in the first round, repeating his success in the following round, and again in the final to win the event for Guy's with an outstanding display of oarsmanship.

The Rugger IV fared less well, in their round against St. Thomas's "A" crew. After half a length lead in the first few strokes, some unfortunate steering gave St. Thomas's the advantage, the latter winning by two lengths. Some consolation can be gained from the fact that St. Thomas's became the eventual winners; however, the race was rather disappointing to the keen crew who had trained very hard under difficult circumstances for the Regatta.

Guy's won their first round heat in the Junior VII against St. Thomas's.

The second round was against Westminster, at low water against a slight stream. Again a more controlled start gave the Guy's cox Westminster's "four" at the stride. With a little more opposition, Guy's gave a splendid controlled performance, winning by one-and-a-half lengths.

In the final against St. Mary's the spade blades and superb fitness of this crew proved a match for Guy's. After the start Mary's were half a length up, and despite a rate of 40 by Guy's, gradually increased their lead to win the event by just over one length.

ATHLETIC CLUB

University of London
1964 U.L. Winter Field Events and Relay Competition

In this meeting, which Guy's have never won, the Hospital came first in the field events and fourth in the relays. Overall, the Hospital was placed first, and success can again be attributed to the depth of talent evident in the *Club. The arrival of a number of promising* freshers augurs well for the Club's prospects next season, especially in the sprint events. With practice in baton changing, the sprint relay team should be very successful. Success in the field events was due, not to any outstanding individual performances, but to the attainment of high team aggregates. Our depleted women's team was represented by Alison Stevens who is to be congratulated on winning the women's discus event.

D. BARFORD

HOSPITAL INFORMATION

APPOINTMENTS VACANT

GUY'S HOSPITAL, S.E.1.

Applications are invited for the post of **Full-time Senior Registrar in the Dental Department for Children,** with duties to commence as soon as possible. Forms of application are obtainable from, and should be lodged with, the Superintendent, Guy's Hospital, London, S.E.1, not later than **Wednesday, 30th December, 1964.**

HOSPITAL INFORMATION

GUY'S HOSPITAL
CHRISTMAS HOLIDAY, 1964

The following arrangements will be in operation over the Christmas period:

Clinical Departments:

The Out-Patient Department will be closed on December 24th, 25th and 26th, and will re-open on Monday, December 28th.

The Physiotherapy Department will be closed on December 24th, 25th and 26th, and will re-open on Monday, December 28th.

The Diagnostic X-Ray Department will be open on December 24th for emergencies only, as will the Radiotherapy Department (treatments only).

Salomons Centre will be open on December 24th.

No Departments will be open on December 25th or 26th, other than the Accident and Emergency Department.

Administrative Offices:

The following offices will be open on December 24th, but closed on December 25th and 26th:

The Superintendent's Office.
The Admitting Office.
The Transport Office.

The Almoner's Office will be open on December 24th until mid-day.

J. B. BLAIKLEY,
Superintendent.

AWARDS

GUY'S HOSPITAL DENTAL SCHOOL
Prize in Children's Dentistry, including Orthodontics

October, 1964

Holt, V. R. } First and Second Prizes
Storey, J. L. } to be shared.

PASS LIST

CANADA

F.R.C.P. (Canada)

ROYAL COLLEGE OF PHYSICIANS OF
J. A. B. Jones

DRY FLY SHERRY

Supplied by:—Findlater, Mackie, Todd & Co. Ltd.
7 Borough High St., London, SE1. HOP 5957

Sidney Da Costa

extends his best wishes to all

connected with

Guys

For a merry Xmas and a happy

and prosperous New Year.

A special toast for those taking

their examinations in 1965.

The very best of luck.

Seasonal Greetings to our friends everywhere

from Claudius Ash

UNIVERSITY OF LONDON

Third M.B., B.S., October, 1964

Pass

A. Aribarg
P. Banks
M. G. Barley
B. V. H. Bray
J. T. St. J. Brown
M. Chan Chew-Koon
T. E. J. Healy
K. B. Hughes
J. Lambourn
C. J. R. Lewis
Sarah A. Marshall
M. B. Mitchiner
A. B. O. O. Oyediran
A. Palmer
Jean M. Parker
Juliet D. Pike
I. Reekie
C. R. Sanderson
F. K. Simbo
Ilse B. Stevenson
B. T. B. Taylor
Fiona B. Wills
D. R. Wilson

Part 1

I. A. Baker
M. B. Barnett
S. Bhanji
Jennifer A. Blyth
A. K. S. Cheng
Jennifer A. Chown
P. D. Davies
L. D. Edwards
C. G. C. Gaches
R. Gilkes
Carol G. E. Gladstone
A. J. Hazzard
B. H. Hicks
C. W. Howell
J. M. I. Iveson
L. Levinsky
I. C. M. MacLennan
H. Munitz
D. J. O'Gorman
Jennifer P. Pearse
Suzanne E. E. Peet
R. A. Y. Pietroni
A. M. Roberts
J. C. Robertson
Patricia V. Rountree
P. J. Rowe
P. Sheridan
P.C. Charles
A. Stevens
M. Walter
Dawn G. G. Woodruff
Rowena C. Yates

Part 2

T. C. Davis
P. J. Dickinson

Part 3

P. J. R. Cox
T. C. Davis
M. Faruhar
T. J. Huins
P. R. G. Needham
P. B. Robinson

Part 4

P. J. R. Cox
T. C. Davis
T. B. W. Johnson
B. P. Robinson
R. A. Sturge
R. P. D. Toone

ROYAL COLLEGE OF SURGEONS OF ENGLAND

Final L.D.S.

Surgery

D. M. Balean
M. J. Breeze
W. C. B. Culver
R. F. Davey
P. R. Eade
F. W. Merrifield
P. A. Mitchell
P. A. Sims
F. M. Titley
A. Winskill

Dental Surgery

A. G. Ball
C. H. Bligh
A. H. Brooke
Gillian Brent
Helen C. Carr
T. R. C. Cheesman
H. Cooper
J. F. Coventry
W. C. B. Culver
P. J. Davy
E. G. Deere
P. R. Dodd
D. A. Dunstan
Susan M. Franklin
Patricia A. Freeman
V. P. Holt
R. A. Ireland
M. S. Jones
N. J. Knott
G. K. Lillicrap
P. Longhurst
J. Mackey
Lalitha Nagasinghe
R. C. Paterson
Marion K. Prest
W. S. Reid
J. R. Reynolds
J. L. Storey
R. J. A. Sudworth
D. W. Tatton
Sara V. Tate
P. D. Venning
J. H. Whitworth
A. A. Worth

NURSING NEWS

Entered
Sister R. Lane to Wilks.

Left
Sister M. Ellick from Out-Patient Department.
Sister J. Evans from Mary.

The following Nurses have passed the **Final State Examination** held in October, 1964:

Allcock, J. I.
Appleton, D. S.
Bastion, E.
Blake, S. N.
Brayne, C. M.
Brotherhood, M. A.
Brunning, D. L.
Bunch, G.
Burholt, R. M. (née Whibley)
Butler-Cole, C. V.
Campbell, M. P.
Clapp, J. A.
Collinson, M. A.
Davis, M. E.
Feather, J. C.
Fenn, E. S.
Forder, J. A.
Gardner, E. E.
Gauvain, P. J. A.
Gilks, D. E.
Goodenough, C. E. H.
Grealy, D. M.
Harrold, G. K.
Henderson, L. M.
Hole, J. R. (née Baker)
Hough, M. A.
Howorth, A. F.
Hunter, K. C. S.
Johnson, E. A.
Joynes, V. A.
Knifton, H.
Landon, S.
Larbalestier, V. D.
Loveless, G. M.
Lovell, M. A.
Ludlow, J.
Lunn, M.
McKeown, M. T.
MacNamara, L. Y.
Miles, J. M.
Owen, M. J
Parry, E. A.
Payne, M. E.
Petherbridge, A.
Purcell, P. C.
Reader, C.
Roche, S. P. P.
Rose, J. F.
Sands, I. M.
Seymour, A. E.
Tarling, A. E.
Tod, S. M.
Turnbull, M. E.
Vellacott, M.
Weldon, V. S.
Willis, A. A.
Wilson, C.
Wood, H. A.
Wright, G. A.
Best, P.
Brument, J. O.
Lowe, M. G.
Powell, M. R.
Roberts, A.
Cracknell, J. R.
Shrimpton, J. M.

PERSONAL

Guy's Dental Surgeon taking an Industrial Dental post in the new year has so far failed to sell his two surgery practice on the Surrey Downs. Two assistants are required to run the practice from 1st January, 1965. Almost the entire net income available to suitable applicants. Box Number 580.

BIRTHS

BAKER.—At Pembury Hospital, on November 15th, to Kathleen (née Harnett, S.R.N.) and Raymond D. Baker, L.D.S., R.C.S., a son, James Raymond, a brother for Nigel, Jan, Alison and Gillian.

KENNETT.—On 17th November, 1964, at Cheltenham Maternity Hospital, to Anna (née Salked) and Brian Kennett, M.B., B.Ch., D.(Obst.), R.C.O.G. (of Firtrees, The Crippetts, Leckhampton, Cheltenham, Glos.), a son, Robert John.

MILTON.—On 24th November, at Nuffield House, to Patricia (ée Le Voi) and Robert Milton, a son, James Benedict, a brother to Timothy, Victoria and Chloe.

MARRIAGES

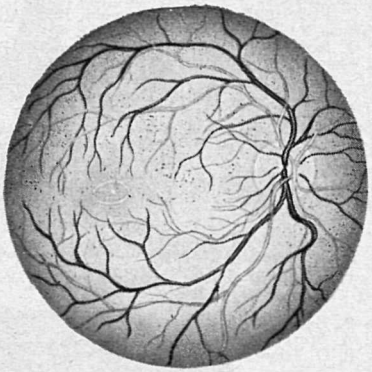
BLACKWELL—SELBY-ADAMS.—On 4th June, 1964, at British Political Agency, Doha, Qatar, H. C. Blackwell to June Elizabeth Selby-Adams, S.R.N., S.C.M.

DEATHS

POWER.—On Friday, 13th November, 1964, at his home in Angmering, Sussex, Horatio Leonard Power, L.D.S., R.C.S.,Eng., formerly of 270, Earl's Court Road, S.W.5, and for many years dental surgeon to the Royal Masonic Hospital, aged 80 years.

TO TREAT OR NOT TO TREAT ?

160/90



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GUY'S HOSPITAL GAZETTE

Vol. 78
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26th December, 1964

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Editors *B. H. Hicks*
P. Bowden

Sports Correspondent *N. J. Knott*

Guy's Hospital, London

PASSIM

With Our Compliments

The year is almost through. Guy's has seen many changes, generally for the better, and the most obvious has been the great task of restoring Guy's House, and constructing the new East Wing. The restoration work has provided modern office space for most of the administrative departments, and accommodation for ninety nurses, twenty-five flatlets for sisters and five larger flats. The East Wing, besides accommodating the resident house-staff, and despite our minor criticisms, must represent one of the finest Students' Club premises in the country and will be much appreciated. The whole scheme (total cost in the region of £1,020,000) was carried through with a minimum of disturbance to hospital life, and to admirable effect.

Yet the end of a year is also the beginning of the next, and what of the future? The prospects are no less exciting, and a number of projects are under detailed discussion at the moment. Two have been already approved *in principle* by the respective authorities, and the final plans are now being drawn up for detailed costing and the hoped-for go-ahead. The twenty-nine storey Tower Block will probably include the new Dental Department and School, an enlarged obstetric department, combined paediatric departments, clinical pathological laboratories, some research facilities, an intensive care unit, as well as three more operating theatres with a reception, recovery and admission unit on first floor level. A new Students' Hostel is being designed to replace present student accommodation. Situated to the east of New Guy's House, the hostel will take at least 250 students, and also a small number of junior staff, and include generous facilities for the residents. The projected design, inside and out, is imaginative and at the same time functional. An encouraging feature of these early plans is the inclusion of an auditorium with all appropriate facilities, for use both as a conference hall and as a theatre. Although somewhat further into the future, thought is now being given to a separate "Medical Block", and even to a parking block for 300 cars.

The next year and many more will be exciting years for Guy's, and if much does not come from them then it will not be for lack of enthusiasm, or effort, "at the top". We hope that for you also the year will be an exciting and a happy one.

Of Bonaparte and Beethoven

Great men topple as doctors, critical of adulation, divulge the syndrome behind the man. Beethoven's brilliance can only be appreciated when one knows that from the age of eighteen he started to go deaf, but the matter does not end there, it was due to either otosclerosis or meningoencephalitis. He also suffered from tuberculosis, which accounts for his recurrent haemoptysis, asthma and bronchitis; an

attack of jaundice in 1821 is thought to be of merely alcoholic origin. In his terminal illness, 31 litres of fluid were drained by paracentesis and later, at post-mortem, a large spleen and portal cirrhosis were found, together with a thickened parietal bone, the diagnosis being confirmed when a prescription for mercury was found amongst the composer's effects. Ludwig's father was a chronic alcoholic as well as a suspected syphilitic, but the son's infection is not considered a parental bequest.

Beethoven wrote a symphony in Bonaparte's praise but when the latter proclaimed himself emperor, it became a work in memory of a great man, "Eroica". Napoleon himself comes under the diagnostician's eye in an article by F. M. Richardson in "The Journal of the R.A.M.C.", who quotes from many sources to support his view that Napoleon suffered from Fröhlich's syndrome. The personification of power becomes a man "with fine and silky hair", "beautiful little pink hands", "delicate and plump with tapered fingers" and, "a coat of fat an inch and a half thick over the breast bone". That a great composer should have been deaf and that an equally great emperor should be a "Fröhlich", is a paradox beyond parody.

When the last *Passim* counted four Presidents at Guy's it (unforgiveably) overlooked some distinguished dental persons. The President of the British Dental Association must be added to the list. Any rise on five?

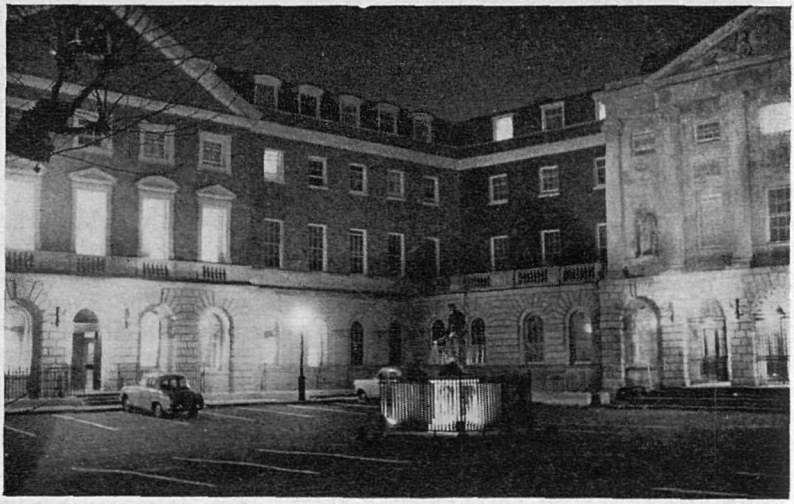
Our distinguished visitor was not able to see the queue in the cafeteria during her time at Guy's, and in fact we were most concerned to note its absence during her tour. However, our panic was but temporary; next day it had regained full strength and was champing, fretting and moaning as usual, etc. etc.

GUY'S DIARY

JANUARY.

EXHIBITION.			*Post-operative Chest Complications.*
1st	F.	1.00	Professor BUTTERFIELD. Clinical Lecture. *The Metabolism of Insulin.*
4th	M.	1.00	Mr. MURRAY FALCONER. Clinical Lecture. *Some Aspects of Cerebro-Vascular Disease in the U.S.S.R.*
5th	T.	1.00	Dr. MANN. Clinical Lecture. *Cirrhosis of the Liver.*
7th	Th.	1.00	Mr. WILLMORE. Clinical Lecture.
11th	M.	1.00	Dr. BAKER. Clinical Lecture.
14th	Th.	1.00	Dr. Ulf RUDE, of the Children's Clinic, Carolinska, Stockholm. *Radiological Aspects of Organic Obstruction to Pulmonary Flow.*

There will not be a Clinico-Pathological Meeting in December. The next Clinico-Pathological Meeting will be held in the Clinical Theatre at 10.00 a.m., on Saturday, 23rd January.



The Front Courtyard, by night

THE QUEEN MOTHER VISITS GUY'S HOUSE

The Governors' Court Room

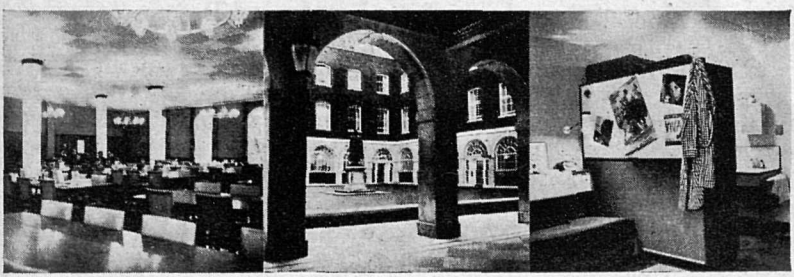
ON Wednesday, 16th November, Her Majesty Queen Elizabeth the Queen Mother came to Guy's to view the restored Guy's House and the reconstructed East Wing. Her Majesty was met on the steps of the Colonnade by the Mayor of Southwark, Mr. J. H. Pascall, J.P., and the Chairman of the Governors, Mr. E. G. Slesinger. The Chairman presented the Dean of the Medical School, the Matron, the Superintendent, and the Clerk to the Governors, before the party proceeded to the Governors' Court Room for further introductions. Her Majesty was then conducted around some of the rooms and flats for the nursing staff. Amid compliments on the design (and the contents) of the rooms she visited, she remarked on the feeling of light and quiet about the accommodation, with a special word of praise for the plane trees that featured in so many views from Guy's House. Despite Tower Blocks, she hoped for more.

Following this, the party toured the administrative offices to arrive in Matron's Office for the signing of the Visitors' Book. From here to a crowded Colonnade to unveil a commemorative plaque, then through the Cafeteria to the Students' Club, where Her Majesty visited the North Common Room and Ballroom (even disturbing a rehearsal for the Christmas Show—to her surprise, no "twangers"), the South Common Room, Television Room and the Reading Room. It was soon time for tea in the Dining Room, and then our gracious visitor took her leave. In her obvious delight in this new aspect of Guy's, and her genuine warmth to all, even those many people to whom she exchanged just a few words, the Queen Mother was a guest not only of honour, but of our pleasure.

Above: The Queen Mother accompanied by Mr. Slesinger, Chairman of the Governors.

Photographs by Lyall Rikard-Bell and Stephen Gregson (Photographic Society).

Below, from left to right: The Dining Room, a view of the West Quadrangle, and one of the Housemans' Rooms in the new East Wing.



SOUTHWARK— *ROMAN SUBURB*

A synthesis of our knowledge from recent discoveries

M. R. MAITLAND MULLER *

. . . it is the opinion of some moderns that the Romans probably had a station on the south side of the Thames . . . The place fixed upon for this station is St. George's Fields, a large plat of ground situated between Lambeth and Southwark, where many Roman coins, bricks, and checquered pavements have been found.—(Dr. Henry, " History of Great Britain", 1771-85).

New light on most ancient "Southwark"

In the 180 or so years since these words were written, a great quantity of remains of ancient Southwark have been found, which have shown us a completely different picture, and a more detailed one, of the area in Roman times.

In 1842, "In making the approaches to the new London Bridge . . . vast remains of buildings were encountered . . . ", and in 1859 in " . . . very extensive excavations for foundations of buildings, . . . substantial remains of Roman houses were laid open . . . on both sides of the High Street, up to the vicinity of St. George's Church . . .".

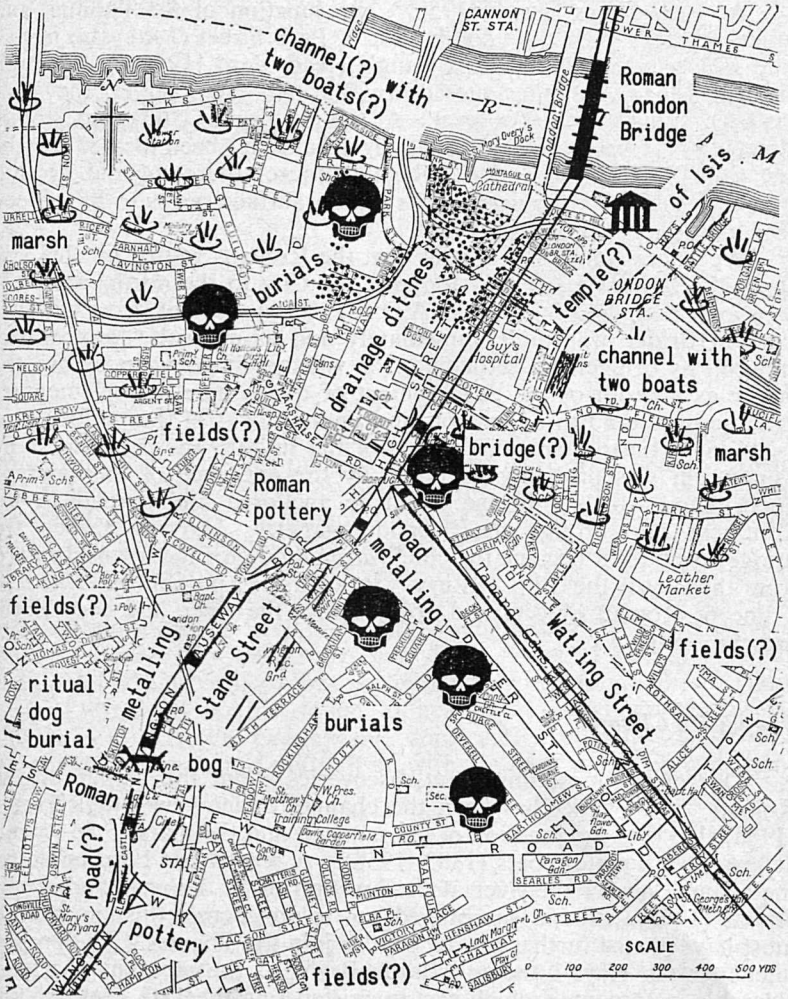
Until 1945, however, unfortunately few of these chance finds were preserved or adequately recorded. The first scientific excavations, directed by Dr. K. M. Kenyon, took place then, and ever since trained archaeologists have been recording and preserving finds on commercially dug sites and carrying out their own archaeological "digs". In this work, P. Marsden, the Cuming Museum, the 1945-7 and present Southwark Archaeological Excavation Committees, and the Thames Basin Archaeological Observers Group have played a prominent part.

When, and why here

Continuous intensive settlement here was started by the Romans. Before that the area was desolate riverside, visited only by hunters and people sailing along the river making camp for the night. This the comparison of the volume of pre-Roman and Roman finds makes plain.

On the north side of the Thames the Romans built the City of Londinium on two gravel hills. Observations of the ancient land surface on the south side, revealed recently by commercial and archaeological excavations, have respectively shown that the ancient settlement here lay on a spit of clayey sand rising out of the riverside marshes which stretched away from it to what are now Bermondsey and Lambeth. This spit was laid down and eroded to its present

*Hon. Secretary, Southwark Archaeological Excavation Committee, Deputy Curator of the Cuming Museum.



Map of the main features of Roman Southwark, 1964. Stippled areas indicate known finds of Roman building.

shape by the Thames thousands of years ago. Its existence had not hitherto been proved, though it had been guessed from the modern surface contours, allowing for the accumulation of centuries of occupation debris over the settlement, and for the dumping for reclamation over the marshes.

At New Guy's House (1958)*, the junction of St. Thomas and Joiner Street [1963]*, and south west of Park Street (1961) the marsh mud has been found; while at King's Head Yard [1945-7], Borough Market (1961) and other sites down Borough High Street, the sand has been found at a higher level. At the junction of Clink and Stoney Streets [1963] the probable Roman river bank has been located for the first time, for just beyond the Roman houses there the old ground level dips towards the river, and its muddy surface seems to have been used as the local rubbish dump.

We know from certain finds that the Romans settled on this spit about the same time as they founded the City to the north, probably very soon after their invasion in A.D.43. But we do not know whether London Bridge was built immediately and as a result "Southwark" grew up as bridgehead settlement, or whether it grew up before the bridge as a result of the development of quays here, complementary to those on the north as part of the London docks of the period, even as to-day. In any case the choice of the hills to the north to build Londinium was probably governed by the existence of the sandspit opposite on which a bridge could be anchored and a road to the Continent run through the riverside marshes. Anyway, when the bridge was built it became the chief *raison d'être* for the township here, from then until the 19th century. Its course is probably marked by a line of Roman objects and coins across the river just east of the present bridge.

The Guy's Channel

One of the most important discoveries about the topography of Roman "Southwark" has been the channel under New Guy's House (1958) [1959] at the junction of the sandspit and the marsh. In it were at least two derelict boats (1883, 1958). A search has been made for the channel nearer the river at the junction of St. Thomas and Joiner Streets [1963]. But it was proved not to run across this site and so must have passed further east or west to join the Thames. The present inlet between Hays Lane and Battle Bridge is the remnant of a considerable watercourse which was in existence in the 13th century, and might be the vestigial mouth of the Roman channel. A depression in its silted up south end may have been preserved in the now non-existent Maze Pond which is shown on 18th century maps. The boats and channel have been described by their discoverer in *Guy's Gazette.*

In the light of this discovery, several features on the west edge of the settlement become possibly significant as indications of a

*(. . . .)=commercially dug sites; [. . . .]=scientific archaeological excavations.

Red Samian Roman pot of about A.D. 200 found on the New Guy's House site (1958.) (With acknowledgments to the Guildhall Museum).

similar channel there. The nails of the boat found at New Guy's House in 1958, securing the planks to the ribs, had been clenched round in a peculiar shape. Nails bent the same way were found in Stoney Street (1865) "driven into baulks of timber"—are these the remains of another derelict Roman boat? Old maps prove that an inlet ran down Park Street 400 years ago, and this could be the last remnant of an inlet between Park Street and Stoney Street. The presence of shipping here is further strengthened by the discovery at the junction of Clink Street and Park Street (1868) of possible remains of a quay or boat, but not necessarily of Roman date. These were of rabbeted boards nailed to beams. The rabbeting suggests perhaps a clinker, i.e. overlapping, construction used in some boats, and the diamond shaped plates used with the nails are again consistent with early boat construction.

The roads and cemeteries

In Roman times burial was forbidden within the town and took place alongside the roads outside. Therefore, the presence of burials often indicates that a road runs in the vicinity, and conversely the remains of a road lead us to expect burials nearby.

The combination of distribution of burials, remains of the roads, and projection of hypothetical alignments from them, since Roman roads were built in straight stretches, enables us to reconstruct the road plan of Roman "Southwark", though there are many gaps still to fill. (See page 599).

From London Bridge a road ran to Chichester roughly on the line of the present Borough High Street and Kennington Park Road. Further south, definite remains of the road have been found; in Southwark less certain vestiges have been found at 199, Borough

High Street [1945-7] and the Post Office (1947) in Newington Causeway. Near St. George's Church this road (later called Stane Street) was joined by another (later called Watling Street) from Canterbury, running roughly on the line of Tabard Street and Old Kent Road. Remains of this have been found south-east of the junction of Asylum Road with Old Kent Road [c. 1930], and a possible trace has been observed near St. George's Church (1964).

The establishment of the exact course of the Roman Stane Street in the vicinity of Newington Causeway is complicated by a bog at the junction of New Kent Road with the Elephant and Castle. This was in existence before the 18th century, when the area was developed, but as to whether it was there in Roman times we have as yet no evidence. A scatter of Roman pottery has been found at the Elephant and Castle during both the 19th century and the present developments, suggesting that there were probably Roman buildings there, but giving no hint of the relation of the road to them.

We have two alternative theories as to the route to test by fieldwork when the opportunities of digging allow: first, that the road ran straight between St. George's Church and The Elephant, and that the bog was formed after Roman times as a result of diggings for clay and gravel. Secondly, that the Roman road followed approximately the line of the present Newington Causeway in order to avoid an already existing mire. In support of this latter theory is the possibility that the edge of some road metalling, with Roman tile and brick in it, found outside the Northern Line Underground Station (1960) may be the original edge of the Roman road, and this is aligned up Newington Causeway. Under Newington Causeway itself metalling suspected to be of Roman date has been observed several times recently (1952, 1960).

There may well have been another road branching off at some point and running west to the ford at Westminster, past the outlying Roman settlement of which vestiges were recorded in St. George's Fields in the 18th century. The find of a Roman ritual dog burial (1962) in Newington Causeway at The Elephant supports the theory that the hypothetical road to Westminster branched off here, for dogs symbolized the Roman goddess Hecate, who presided over cross-roads. It also supports the theory that Stane Street ran on the line of Newington Causeway.

The Romans used two forms of burial. In the first half of their 400 year occupation of Britain they practised cremation, and in the latter half inhumation. Both types of burial have been found in Southwark. Recent examples are a cremation in a flagon (1956) in Trinity Street, and two inhumations accompanied by Roman pots (1938) in Falmouth Road. In the last century a great deal of material was found from the cemeteries, especially near Deverell Street, but despite careful watch on the recent redevelopment there nothing further has come to light.

The town and its buildings

The work since the 1939-45 war has given us much more information about the town because modern archaeologists have been able to record the more perishable structures which were hitherto not recognized. In the earlier part of the Roman period, the "pioneer" period, the houses tended to be of hurdling plastered with mud, of which examples have been found in King's Head Yard [1945-7] and Borough Market [1961]. Later they were more substantial and built of stone and brick, with tiled floors and roofs, central heating, mosaic pavements, and painted plastered walls inside. Remains of such buildings have been found in the past, even as early as 1658, and one was touched upon in excavations at the junction of Clink and Stoney Streets [1963].

At its greatest extent the town stretched from Park Street to Guy's Hospital, with the houses thinning out to strip development to St. George's Church, and then a gradually sparser scatter alongside Stane Street to The Elephant. Roman pottery has been found at Lant Street [1964] on the old ground level but disturbed by 16th century cultivation.

What was life like in such a township? It would have been little different from life in a small English town before the Industrial Revolution, and in some ways a good deal more comfortable. One peculiarity would have been the Temple to the Egyptian goddess Isis, probably in Tooley Street. She was a patron of sailors, amongst other things, and it would have been appropriate for her to have had a temple close to the riverside quays. Another would have been the shallow wood-lined "wells" found at Borough Market [1961] which might have been fish tanks. They seem too shallow for water wells and in one was found a fish bone. The houses were lit by small pottery oil lamps, one of which was found recently at the junction of Clink and Stoney Streets [1963] still with its wick, preserved by the mud. (See page 604).

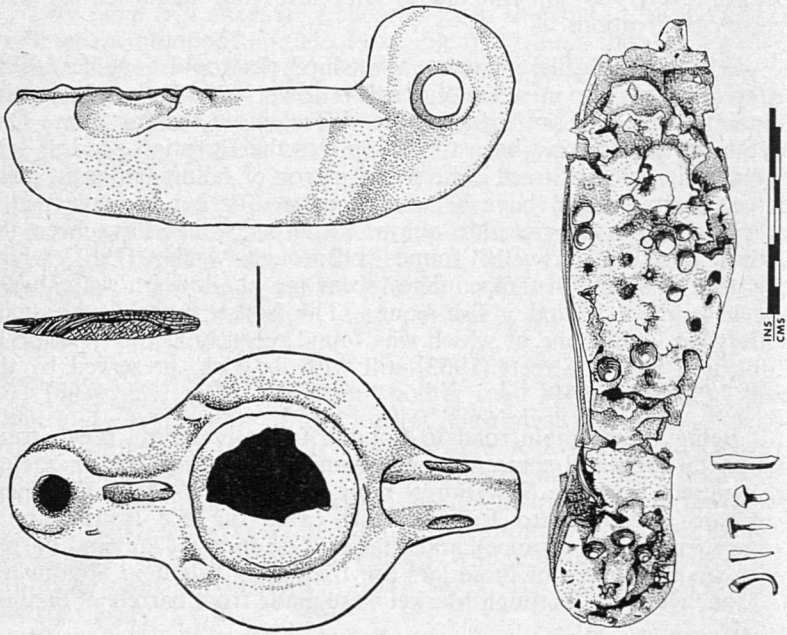
Being on the main road to London from the south, much trade passed through and some products remained. Such is the characteristic pottery from the New Forest kilns, and the Alice Holt kilns near Farnham. By ship to London Port came the red lustre Samian pottery from Gaul (France), and wine and oil in great jars and barrels from Spain. Pieces of these jars are frequently found in Southwark, and the "wells" at Borough Market were made from barrels of Spanish wood.

Roman "Southwark" was damp

Roman "Southwark" must have been somewhat damp and subject to the threat of flood, and became increasingly so as the years went by. The Thames valley has been slowly and erratically sinking for thousands of years, and still is. In late Roman and early Saxon times there was a period of accelerated drop, and sites at Brentford, Tilbury and Upchurch are now 12 feet or so below high water mark. Recent discoveries in Southwark have revealed, however, that the sequence

of events here was far from simple.

In the 1st and 2nd centuries of Roman settlement in Southwark, occupation encroached on the marsh at the sides of the sandspit, as at 199, Borough High Street [1962] where there were signs of use of the surface of the mud which overlay the sand of the spit. This may have been accompanied by a policy of dumping on the marsh edge for reclamation, which seems to have occurred at Mermaid Court [1964], though without achieving a sound land surface there. Definite evidence of an attempt to rid the sandspit itself of water is the system of drainage ditches, records of the remains of which are gradually accumulating. They have so far been found at Borough Market [1945-7, 1961], King's Head Yard[1945-7] and several other sites down Borough High Street, especially in the last five years. These ditches seem to have run across the sandspit from marsh to marsh in parallel lines. At 199, Borough High Street, [1945-7] there is some evidence



1. Roman pottery lamp (top and side views), and perfectly preserved wick.

2. Leather sole of Roman shoe studded with nails, and some of the nails.

All found at the junction of Clink and Stoney Streets [1963].

(With acknowledgments to the Southwark Archaeological Excavation Committee).

that the main road, Stane Street, was carried over such a watercourse by a bridge. This drainage work may have included embanking the river, for the marshes immediately beside the sandspit seem to become drier through the 2nd century. On the west side, south-west of Park Street (1961), the mud changes to peat, and on the east side at New Guy's House (1958) [1959] the channel silts up despite several attempts to clear it. An interlude of flooding in the early 3rd century is indicated by silt layers at the Park Street site (1961) and at the junction of St. Thomas and Joiner Streets [1963], but steady reclamation may be proved by the probable presence of buildings and 3rd or 4th century inhumation burials south-west of Park Street (1825, 1892-3).

In the 4th century there was final extensive flooding of the settlement, for a layer of silt occurs at Borough Market [1945-7], King's Head Yard [1945-7], Newcomen Street [1945-7] and Mermaid Court [1945-7]. This must reflect the breaching of the river banks in the face of the inexorable and speeded-up sinking of the river valley at the time of the decline and collapse of Romano-British administration.

You can help discover ancient "Southwark"

Many people gaze over the fence at an archaeological excavation, and see the diggers, mostly young, going to and fro with wheel barrow and trowel, drawing board and notebook. But how many kibitzers realise that the excavation is only a small part of a whole fascinating leisure-time socio-academic world devoted to the study of history? Most archaeologists are amateurs, though many of these in their specialised knowledge are no less learned than the few scholars who are able to earn their bread and butter by archaeology.

Many skills can find a useful place in archaeology, such as dissecting, photography, skin-diving, drawing and catering. The interests which can find a place are legion, from anatomy and architecture to zoology and zeitgeist. Anyone who has a hankering to get lured into the engrossing whirlpool of archaeology, whether to dig, or record on commercial sites, or to pursue back-room work, should discuss their leanings and the possibilities with their local museum—in Southwark, The Cuming Museum.

Some future work

Judging by the results of the intensive research of the past twenty years, much of the topography of Roman "Southwark" could be revealed to us by a combination of observations of commercial diggings and scientific excavation. Additional records of the depth of the natural orange sand and of the grey marsh mud, irrespective of the presence or not of Roman material, will help to define more clearly the boundaries of the spit on which the ancient township lay. Similar observations in the area between Park Street and Clink Street may prove or disprove the existence of a channel there, and in the area to the north-east of New Guy's House they may reveal to us the route

by which that channel reached the Thames. Further, the plan of the Roman drainage ditches should gradually fill in; and the problem of the exact route of the roads in the areas of Tabard Street and Newington Causeway may be settled. Scientific excavation of the cemeteries and buildings should throw light on the beginning of the settlement, the date of the Bridge, the ups and downs of the township, its trade connections, flood threat, and its end.

Roman "Southwark" 1964

Imagine you are looking down on Roman *Londinium* from the sky some 1700 years ago. There is the river *Thamesis* flowing along to the sea as it does to-day. On the north side is the walled City. A road leads from this over a bridge over the Thames and runs through a cluster of warehouses and inns, and a temple to the goddess Isis. Bordering these to the east is a channel running in from the river with various boats lying in it, some being loaded and unloaded, some being built and repaired, and others abandoned and rotting. Bordering the settlement on the west side is perhaps a similar channel. Beyond these, marshland stretches away to where Bermondsey and Lambeth now lie. All over the built-up area can be seen regular lines of drainage ditches. On goes the road with houses and tombs straggling beside it until it forks. Then, with tombs clumped alongside, one branch goes down the Old Kent Road to *Durobrivae* (Rochester), *Durovernum* (Canterbury), and the south-eastern ports; and a second, through farms and neat grids of fields, perhaps after a diversion round a great bog, runs down Kennington Park Road to *Noviomagnus* (Chichester) and the south coast ports; and perhaps a third, the London by-pass, runs past a minor settlement in St. George's Fields to the ford over the Thames where now stands Westminster Bridge.

OBITUARY

ARTHUR LYSAGHT

It is regretted that the death of Mr. Arthur Lysaght, of Lisvane, Cardiff, occurred at the Cardiff Royal Infirmary, on Wednesday, 11th November, 1964, after two weeks in hospital. He was the Senior Surgeon to the United Cardiff Hospitals, specialising in Rectal Surgery, and a founder member and Past President of the Guy's Hospital Society, South Wales and Monmouthshire Branch. He qualified at Guy's in 1925 and obtained his F.R.C.S. (Eng.) in 1933. After an illustrious career, he joined the Cardiff Royal Infirmary as a surgeon in 1934, and was a teacher of surgery at the Welsh National School of Medicine. Before going into Medicine, he joined the Royal Navy, but gave up owing to ill-health. During World War II he served as Surgeon Specialist to the Royal Air Force Medical Branch, mostly at home, but also in Iceland. His hobbies included a great interest in cricket. He had an almost complete set of Wisden, which he was said to know almost by heart. He had a keen interest in motoring and was especially interested in unusual cars. His other interest was sailing. He was a keen member of the Penarth Yacht Club, and he kept a boat at Fowey, Cornwall. His death is mourned by his widow, his family of four, his colleagues and his friends.

The Old Miller of Mansfield

Situated in the shadow of Guy's Hospital, the new house replaces the "Old Miller" nearby, which was so well known to generations of Guy's men and which finally closed its doors on December 9th.

The house was opened by Professors W. J. Butterfield and Keith Simpson. The latter establishes a link with the original " Old Miller", who proved in his day, that crime not only paid, but brought him a knighthood into the bargain. When King Henry II lost his way, while hunting in Sherwood Forest, he sought shelter with the Miller, who was an inveterate deer poacher. His company and hospitality and the excellence of his "Lightfoote" venison pasties, so pleased the King that he knighted him and made him overseer of Sherwood Forest there and then.

The combined lounge and snack bar is a large well-proportioned room with an island bar servery in the middle. The " Dusty Miller Bar " has been specially prepared for Guy's students. One wall has an interesting array of photos of Guy's Rugger Club entitled " Guys in action ", spelt out in rugger ball symbols. A suspended shelf over the bar holds fifteen tankards, and it is from these that only the elite who have played three times for the Tankards Club may drink. Many years may elapse before this honour comes their way. Guardian of this shrine, manager of the house and President of Guy's Tankards, is Reg Brake, who managed the old house and who over the years has become an "institution" in his own right with Guy's students. The restaurant upstairs will cater for the most discerning palate. An attractive bar is a feature of the room and provision, by way of a removable section in the fitted carpet, has been made for dinner dances. Notice boards in the hall and outside the house will give details of all Students' Union activities, and it can be said that the house has been built with "Guys in mind."

Pupils' Physical Society

On Thursday November 26th, the Pupil's Physical Society held yet another of its admirable quizzes. Credit for this particular one must go to Marcus Pembrey, who arranged the items and conducted the research into them. The greatest enjoyment must surely have been derived not in the questions one could answer, but in picking up those little tit-bits of information with which to baffle one's friends. For example, did you know that Miss Sweden might well lose a Miss Universe competition because she was suffering from macrocytic hypochomic anaemia, occasioned by the parasite *Diphyllobothrium Latum*, or that Cockles and Mussels contain a greater concentration of iron than spinach, despite Popeye? The Society had three lady guests from the Royal Free Hospital, invited I gather to show that Guy's was not without an active society. Perhaps the competition might have been keener if invitations had been extended to the other London Medical Schools. Twenty-five students is not really enough for an event of this kind. It was a pity that the meeting could not have been extended to the after-supper period, as have gatherings in the past. After all, the Pupil's Physical Society does offer an ideal stage upon which students can discuss all manner of subjects related to medicine in informal surroundings and under expert guidance where required. Only one patient was brought to this meeting, and even this was a case of visual recognition of sclerodema. This is an excellent arrangement, for there is nothing more frustrating than competing with half-a-dozen other people at the same time, in listening to a patient's chest in a rushed attempt to make some diagnosis. The idea of spot diagnosis from coloured slides, incorporated into this quiz, is much more satisfactory. May the Pupil's Physical Society continue to entertain and enlighten us by the production of more such Medical Competitions.

MARTIN H. JOURDAN.

CRITICISM

Guy's Hospital Theatre Club Productions—December, 1964

Next Time I'll Sing To You

BY JAMES SAUNDERS

There is a short story about this review. Requested to undertake it as he was seating himself for the performance, the author begged to excuse himself on unassailable grounds : pressure of existing and unfulfilled literary commitments. The request was pressed, with flattering implications. The author renewed his explanation of why he couldn't do it, touched as he was by the pressure. " Anyway ", he suggested, " don't you think a review of this production should be done by a contemporary of the cast and producer?" " No, we do not ", came the firm rejoiner, " what we particularly want for this is the view of AN OLDER MAN . . . " Here it is.

James Saunders writes as a serious dramatist who subscribes to Becket's and Pinter's original dictum that whatever else is funny, tragedy is not. Fine But that's no excuse for making it dull, or skipping the rigours of creative writing while leading up to it. The first half of " Next Time I'll Sing To You ", like the first half of " Waiting for Godot ", is plain dull; and for the same reason in both cases. Clichés, half told laborious anecdotes, and half-baked unfinished Great Thoughts, leave the audience fidgeting, and vaguely aware of being taken for an unnecessary and not very interesting ride : a send-up of second rate music hall patter interspersed with Trinderish tongue protrudings at the audience (captive, after all, only by consent) is no substitute for involvement. And despite the cast's work and the producer's imagination and integrity, to say nothing of the dilatorily developed intentions of the playwright, involvement, suspension of disbelief, the lot, were just not there in Act I. Goodwill alone retained the audience until Act II, which was better. I couldn't call it good.

This is a play of ideas. In his programme note (required reading for critics of this critique), the producer called it " An exercise of theatre rather than in theatre . . . . " I doubt whether reversing the prepositions would invalidate that statement. Could be it's just anti-theatre when you really get down to it.

Everyone concerned really did get down to it, with the possible exception of James Saunders himself. Something that concerns him is the way we are all locked in our skulls, imprisoned there for life: " This ", says Rudge, (who should have been

moving, but wasn't, not primarily Matheson's fault) " is the only thing that matters. Never mind the colour bar, never mind the H-bomb; it doesn't matter, you see, it's a small thing, it's—irrelevant. There's only one thing worth understanding, only one thing worth thinking about, and that is that I am a mind locked in twelve hundred grammes of brain locked in a quarter-of-an-inch of skull, and the only key to this prison is death. No matter how I reach out towards you or you towards me, we are still locked in our skulls as before. . . . "

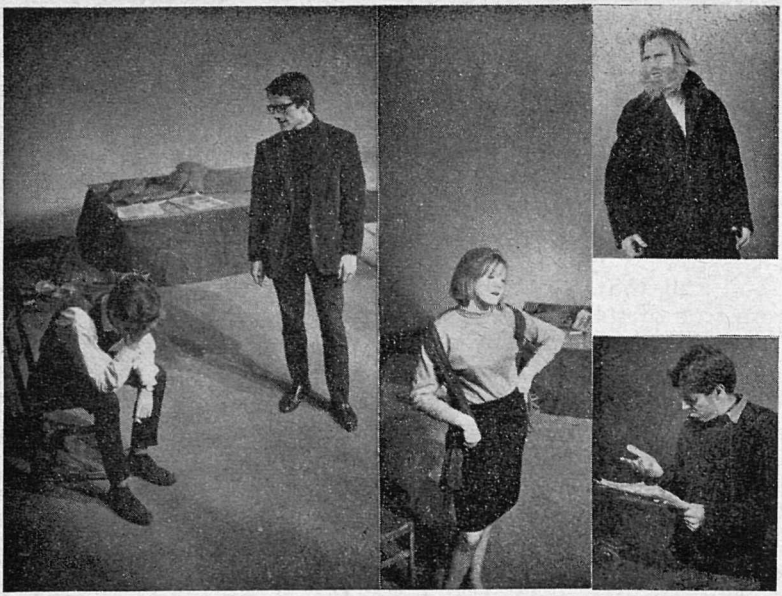
I call that a deliberately artificial statement : even if it were true of subjective human experience, it would still require passionate or unassailable exposition to get over. As served up by Saunders, it sounded so contrived as to be almost meaningless. And anyway, if communication were really so ultimately impossible, what would be the point of saying so? The very act of writing, producing, acting, or even going to a play, is in itself an act of communication. What matters most about it is its content and its quality.

Which brings us to Act II, and " a certain quality, which we may call grief, which lies behind everything . . . " No quarrel with that : but still spread out desperately thin for the poor old audience and their tired fidgety bottoms. Some day, Jas. Saunders is going to get down to something with finally creative tragic impact. I hope I stay imprisoned long enough to see it. After all, the Hermit lived to eighty-four and never seems to have been very fit. . . .

" Next Time I'll Sing To You " is something that real old Hermit actually said : but characteristically it isn't in the script, except as the title—and yet it's better than so much of what is. Thank you, Stephen Robins, for risking a pretentious flop because of what you saw in it; and what you and the rest strove to give to it. Christine Cocks certainly offered a remarkably balanced and flawlessly sensitive characterisation, Christopher Hudson was polished and assured, and friends Davies, Davenport and Matheson worked hard and faithfully: the medical byplay was elegantly contrived; the set excellently conceived and the lighting immaculately timed for effect. In fact the energy, enthusiasm and humane imagination of all concerned maintained the best traditions of the Theatre Club. I just wish it had been a better play—that Saunders had done more with his theme and his material.

One last inescapably double-edged observation, and I'm through. Looking back at the gorgeously produced programme, does it not contain one eradicable flaw? I mean the biographical bits on the producers : honestly, could anyone possibly deserve that kind of mush? I write with respect : not disdain.

D. S–C.



Next Time I'll Sing To You. *From left to right, Rudge (Christopher Matheson), Dust (Christopher Hudson), Lizzie (Christine Cocks), the Hermit (Peter Davenport) and Meff (Christopher Davies).*

The Importance of Being Earnest. *From left to right, Lady Bracknell (Valerie Beaton), Gwendoline (Mary Cunningham), "Earnest" Worthing (Peter Dunstan), Algernon (Nicholas Flower) and Cecily (Pat Creaven).*

The Importance of Being Earnest

There is no doubt that a production of " The Importance of Being Earnest " always gives great pleasure to the audience, and that given by the Theatre Club this month was no exception.

Much attention had been paid to the set, which was one of the must successful to be constructed within the difficult surroundings of the Physiology Theatre. It was very pleasing to look at and gave generous stage space. Suitable props and furniture combined with, on the whole, excellent costumes, provided the realistic atmosphere so necessary to this play.

This is a very difficult play to do. It presents farcical characters in a farcical situation, and gives them dialogue that quite precludes the touch of farce. It " treats all the trivial things in life seriously and all the serious things of life with sincere and studied triviality."

The problem is to make the characters real without any tendency to caricature, and for the dialogue to be conversational, spoken with complete conviction, the epigrams thrown away without hesitation. These people do not pause to regard their own wit. They have a hundred more clever things to say, and the repartee, although it may be sometimes languid, achieves a pace which must increase with the succession of dialogues culminating in the dénouement.

This calls for great discipline on the part of the players. The parts are so good that the temptation is ever present to build them up that little bit more—a phrase savoured here, a pause held there before the bon mot is produced—and this sort of thing soon isolates the players from one another, for they become absorbed with themselves. When the players in any play lose contact with each other, the pace slackens, but in this play, where ensemble playing is so vital, the effect is particularly noticeable.

It seems churlish to be critical in the face of the obvious enjoyment of the audience, but this is such a wonderful play that it was disappointing to see such a potentially good attempt just failing to catch alight. It would be invidious to discuss individual performances, for all were quite accomplished. Difficulties arose because of the tendency to caricature, and this, with the almost inevitable slowness, was emphasised by the demanding nature of the play.

Of course, the performance was good by most amateur standards, and the Theatre Club obviously has plenty of talent at its disposal. Because of this the Club must wish to take its work seriously. They are fortunate in always having a kind and attentive audience, but this makes it all the more important that the players and their directors should resist the temptations of self-indulgence. The theatre gives back in real satisfaction in proportion to what is put into it. In the theatre as in this play, one must value " The Importance of Being Earnest."

R.D.N.

CORRESPONDENCE

Res Natura

SIR. Mr. Timothy Peet must be congratulated on his excellent article on the natural history in Southwark. It has reminded me of some random observations I made whilst at Guy's from 1948 to 1954. During the Spring, swallows could often be seen flying North over the college, and one October evening I saw a dozen housemartins flying round the old college quarters. The next day they had gone. Once, on looking out of the Library window, I saw a party of bluetits on the plane trees, but unfortunately I, too, never saw a black redstart. Until about 1950 the starlings roosted in the plane trees and some buildings, but when these trees had been cut down, the starlings left Guy's.

I can only remember seeing two butterflies of note; a brimstone seen one spring and a dead painted lady found on the college steps one autumn.

It would be interesting to hear of the observations of other Guy's men.

Yours, etc.,

J. V. V. LEWIS

Bridge House,
2, Ely Street, Stratford-on-Avon

The Dental Ball

The Ball this year was held on the 27th November at the Cafe Royal. Guests were welcomed by Professor and Mrs. Herbert and the faintly pleasant noise of a steel band of dubious derivation. The steel-skiffle cocktail mixed well, however, with more alcoholic concoctions, and left all with a noble sense of purpose when approaching the *Selle D'Agneau Rôtiè*. Only at your correspondent's table, apparently, was a small ball-bearing isolated among the peas, and the dinner passed otherwise without event of note. The grand draw disposed of more and yet more prizes, among which none were trivial and some first-class, and then left guests amid liqueurs and cigars to waft gently into the dancing. The organisers wisely decided to substitute variety and quality of bands for any cabaret, and the music for dancing ranged from Sylvester through the Rolling Stones to Trinidad. The wine was superb, the music was fine, the company was great; the evening, all in all, was good. Enough said.

Guy's Hospital Rugby Ball

The Guy's Hospital Rugby Football Club will be holding its Annual Ball at " Quaglino's", Bury Street, St. James's, on Wednesday, February 24th, 1965, from 8.30 p.m. until 2.0 a.m. Dancing will be to Arthur Salisbury and his Orchestra. Double tickets will cost 5 guineas (students 4½ guineas) and will be available early in the New Year.

D. GOURLEY (Chairman, Ball Committee).

Guy's Hospital Students' Club

A General Meeting of the Guy's Hospital Students' Club will be held in the Physiology Theatre on Tuesday, 12th January, 1965, at 12.15 p.m.

AGENDA

To discuss the feeding arrangements in the Cafeteria.

G. M. DAVIES (*Hon. Secretary*).

REVIEWS

PHYSICIAN'S HANDBOOK,

by M. A. Krupp, N. J. Sweet, E. Janetz, E. G. Biglieri, 13th Ed. Blackwell, London. 1964. *Price* 34*s*.

The Physician's Handbook contains an enormous amount of information. However, in order to find any one fact, it is necessary to have examined the book fairly carefully beforehand. Once the underlying theme has been found, the required facts come easily to hand. There is the American passion for detail and the descriptions of laboratory procedures are by no means essential. All the basic values one will ever require, and a wide range of diagnostic tests are described. Indications and contra-indications are given, and short sections on the interpretation of results are included. The illustrations, as might be expected in a book of this nature, are not good and add little to its value. This book contains much essential information; it does, however, presuppose a certain basic knowledge, and so only for final year students and House officers can it be thoroughly recommended.

M. PEARSON.

LECTURE NOTES ON PSYCHOLOGICAL MEDICINE,

by T. Ferguson Rodger and I. M. Ingram, G. C. Timbury, and R. M. Mowbray. Livingstone. 2nd Edn. 1964. Pp. 108. *Price* 7*s*. 6*d*.

These lecture notes were drawn up for the use of undergraduate students; only concise general statements have been given and many theoretical controversies avoided. A glossary has been added to this second edition and the notes, as before, are intended to be amplified by lectures and further reading. So runs the preface.

The authors have produced a reasonably priced clear and very concise paperback which succeeds in surveying completely all-important branches of psychological medicine. The chapters include a simple and easily understood classification of psychiatric disorders, straightforward advice on coping with psychiatric emergencies, and a two-page survey of " experimental psychiatry " which adds meaning to the concepts of psychosis and neurosis, besides covering the social, legal and treatment sides of psychological medicine. There is also a chapter on encephalography which is well illustrated with recordings. The glossary sandwiched between the preface and the first chapter is perhaps too brief. For instance, the definition of personality as being " all the unique personal qualities of an individual " is not particularly helpful, nor are the definitions of "sibling" and " incidence " which students might be presumed to know already. " Perseveration",: " obsession" and "stereotyped act" are concisely enough defined, but so vaguely as to seem at first sight interchangeable terms, which might even be confused with epileptic activity if the latter were to be defined as vaguely.

This book is strongly recommended for students. It is concise enough to be read in an evening, will serve well both as an introduction and as revision notes, and will fit the average student's pocket as well as his purse.

JAMES ROBERTSON.

AN INTRODUCTION TO NEUROSURGERY.

By W. B. Jennett. William Heinemann—Medical Books Limited. London, 1964. Pp. 326. *Price* 45*s*

This little book sets out to give a comprehensive and clear summary of neurosurgery, outlining investigative techniques and surgical procedures in a way that is useful for anyone wishing to become acquainted with the speciality. It is clearly written and its price is right. Its style, however, is condensed and didactic, and some of what it says could be disputed. No two neurosurgical departments follow precisely the same approaches. However, at the end of each chapter some useful references for further reading are given. The book does not purport to be a text book or source book on the subject, and it will fill a niche which has long been empty. It is easy to read.

MURRAY A. FALCONER.

National Provincial

The Guys Hospital Office, which is opened for your especial use, is under the management of Mr. W. C. Frankum, Southwark Branch, 12-14 Southwark Street, London S.E.1, and enquiries will be welcomed.

SPORT

Reports and Results

RUGBY FOOTBALL

GUY'S v. LONDON UNIVERSITY

At H.O.P. 11th November, 1964

Result: won 24—9

Guy's were without four regulars, who were playing for the United Hospitals, but won well against London University by three goals, one try and two penalty goals to one try and two penalty goals.

The conditions were very good when the game began, with London University attacking. They were quickly ahead with a penalty goal but the reply from Guy's was immediate. B. Rowlands sliced through a hesitant defence, having taken a reverse pass from his scrum-half, for a try which R. Brown converted. The University, however, went ahead again when A Morris' clearance kick was charged down for a forward to score a good opportunist try. Apart from this one slip, A. Morris' play was exemplary.

Guy's now began to capitalise on their greater speed and weight. The next two tries, between which London University scored a penalty goal, were both good. First, from a tight scrum the ball went left to T. Allen who put in a nice grub kick, and J. Ross won the race to touch down. A. Morris converted. Then, just before half-time, the forwards pounced on a cross-kick from the right wing and the ball travelled quickly to J. Ross who scored again in the left corner.

Following this incisive first half, play seemed scrappy after the interval. Guy's were generally on top, but London University, with only 14 men, kept them out until five minutes from the end. Then R. Brown kicked two penalty goals and scored a try, which A. Morris converted, to round off a good team effort by Guy's.

C. J. WRIGHT

Team: A. Morris; J. Ross, A. Allan, D. Osborne; R. Kerner, B. Rowlands; D. Bevan, R. Stansfield, P. Ashcroft, A. Fisher, M. Cockburn, P. R. Peace, H. Sharp, K. Brown, R. Brown.

CRICKET CLUB

At the Annual General Meeting of the Cricket Club, held in the Physiology Theatre on Thursday, 12th November, the following elections were made:—

Re-elected President: Sir Rowan Boland, C.B.E., M.D., F.R.C.P.
Re-elected: The Vice-President.
Elected a Vice-President: R. A. Haywood, Esq.
Elected Captain: J. K. Crafts.
Vice-Captain: M. I. Appleby.
Secretary: D. B. A. Silk.
Treasurer: J. Powell-Jackson.
The Trist Cup was awarded to M. Walter.

HOCKEY

The half-way stage of the season has now been reached and although there has been a mixture of success and disappointments, the facts are that the 1st XI results, in comparison with those at this time last season, show two more wins and one extra defeat.

While there is little place for complacency, there are very high hopes that the Hospitals' Cup will stay at Guy's. A defeat does not do any club any harm, providing they are willing to learn from their mistakes, and the advantages taken by the opponents.

The 1st XI is a well balanced team and the combination is admired by many of the other Hospitals. It is up to the players to show their superiority, and with the important Cup matches to be played early in the New Year, it is hoped they will justify their selection.

The 2nd XI has been excellently led by S. Rear, and he has shown that it is not impossible to captain a team from the goal-line. The 2nd XI have a bye into the Semi-final of the Junior Cup, and when they enter the competition in the New Year the best wishes of the rest of the Club will be going with them.

The 3rd XI are enjoying their hockey, and are to be congratulated on having been defeated only three times this season. Both the 3rd XI and 4th XI have to content themselves with playing away from home each week, and it is the spirit and keenness which these players are showing which forms the basis of the success of the Club at this moment. If the second half of this season produces the same spirit, with perhaps a little more drive, the success which the players deserve must surely be forth-coming.

The records of the teams stand as follows:

	P.	W.	D.	L.	F.	A.
1st XI	11	7	1	3	18	1
2nd XI	10	6	1	3	20	11
3rd XI	9	2	4	3	16	18
4th XI	8	0	2	6	2	28
Wednesday XI ..	7	6	1	0	19	6

Finally, the Club is extremely grateful to the one or two supporters who have turned up to offer verbal encouragement, even in the most miserable weather. They can never be given enough thanks for their loyalty.

ARTHUR HIRST

GUY'S v. GRAVESEND

At Gravesend. 14th November, 1964

Result: drawn 0—0

The 1st XI, with one defeat and only three goals scored against them this season, travelled down to Gravesend where the Club has not won for many years.

The Guy's team should have taken the lead during the first half of the game if the forwards had taken their chances in front of goal, and if Loader had scored from the three short corners he took. As it was there was no score at the interval, with both defences on top and the forwards playing some good mid-field hockey on an excellent pitch.

The second half followed the same pattern, except when Carruthers broke through the Gravesend defence only to hit the post from two yards out.

Gravesend, too, had their moment of excitement when they went within an inch of scoring; the ball being just the right side of the line with three Guy's defenders and one Gravesend forward surrounding it. The umpire quite rightly gave a short corner. The opposition failed to score from this and the game ended as it began, with no score to either side.

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Rear again played well in goal, deputising for Hirst, who had his usual County commitment. Guy's are indeed very fortunate in having two first-class goalkeepers.

Team: S. Rear; D. Loader K. Haynes (Capt.); J. Crafts, C. Brooks, N. Turfitt; R. Carruthers, S. Cripps, M. Appleby, P. Bennett, P. Liddiard.

DAVID LOADER

GUY'S v. NATIONAL PROVINCIAL BANK

At Beckenham. 21st November, 1964

Result: won 2—0

This certainly was not one of the Hospital's better games—all that can be said is that we were a little better than our opponents.

One umpire was indisposed, putting a heavy burden on the shoulders of the other, such that several infringements went by unnoticed. This, in itself, did not make way for a particularly clean game.

Half way through the first half, Guy's went ahead with a following-up goal, well taken by Carruthers. Guy's had most of the run of play, and Appleby scored a further goal towards half-time.

In the second half the game deteriorated, and no further goals were scored. It was twenty minutes from the end when Appleby tore a muscle in his left leg and had to leave the field. This injury is likely to keep him out of the game, probably until Christmas. A little physiotherapy should put him well on the road to recovery!

This was not a game to be proud of, especially when we know that we are capable of far better. It is hoped that we will now show the improvement worthy of our record so far this season.

PAUL LIDDIARD

GUY'S v. SOUTH ESSEX

Away. Saturday, 12th December, 1964

Result: won 4—1

After the disappointments of the last two weeks, Guy's at last settled down to play some constructive hockey. The slippery pitch and gloomy light did not look very encouraging, but both teams were willing to try and open the game up as much as possible by swinging the ball about.

Guy's always looked the best team in the first half, and although they deservedly turned round at the interval with a 3—0 lead, the goals were more a matter of good fortune than skilful hockey.

Bennett scored the first goal with a reverse stick shot which looked like a good pass to the centre forward until it slowly curled into the net, much to the amazement of Bennett and the South Essex goalkeeper.

The next two goals came from Lewis, who took control of the ball, following some very useful kicks, and on both occasions gave the goalkeeper no chance.

The forward line played well together for once, and when an "old" hand in the front line became tied down by an even older opposing wing half, the more youthful inside forwards were at last managing to run onto the loose ball.

The second half was lost in the darkness and both teams spent more time chasing phantom figures than the ball. Still the lone supporter on the touchline, who constantly advised Guy's to "Get in", had a stimulating effect in the team.

The fourth goal was scored by Bennett, but few people beyond the half-way line saw how it was scored.

The South Essex goal came near the end when the inside left for once sneaked passed Crafts in the darkness and found himself with only the goalkeeper to beat, the fast tiring Guy's full backs having been stranded mid-field. For those who did not see the shot, the ball entered the net after striking the inside of the post.

The final whistle heralded the end of the 1964 fixtures, and as both teams groped their way back to the pavilion, it is said that someone heard—"And a Merry Christmas to you too!"

A. HIRST

LADIES SQUASH

GUY'S v. ROYAL FREE HOSPITAL

At Guy's 29th October, 1964

Result: won 4—1

A. Moore won 3—1.
C. Stannard won 3—0.
C. Wotherspoon won 3—0
W. Higlett won 3—2.
G. Brent lost 0—3.

GUY'S v. ST. BARTHOLOMEW'S HOSPITAL

Away 2nd November, 1964

Result: won 3—2

A. Moore lost 1—3.
C. Stannard won 3—0.
C Wotherspoon won 3—0
P. Hubbard lost 2—3.
W. Higlett won **3—0.**

GUY'S v. BEDFORD COLLEGE

At Guy's 12th November, 1964

Result: won 5—0

A. Moore won 3—2.
C. Stannard won 3—1
P. Hubbard won 3—2.
W. Higlett won 3—0.
P. Rench won 3—1.

HOSPITAL INFORMATION

APPOINTMENTS VACANT

EVELINA CHILDREN'S HOSPITAL OF GUY'S HOSPITAL

Applications are invited for **two Resident Paediatric House Officers** (with casualty duties) one to commence 1st February and the other on 1st, April, 1965. The appointment is recognised for the D.C.H. and consists of four months medicine and two months surgery. Candidates must be registered practitioners and should apply giving age, nationality, qualifications (with dates) and copies of three recent testimonials, to the Hospital Secretary by first post on 8th January, 1965.

NURSING NEWS

Left

Sister D. Hollinghurst from Matron's Office.

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Q What do the letters Q.A.R.A.N.C. (usually shortened to Q.A.) stand for?

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Q What do the Q.A.'s do in peacetime?

A They nurse the Army and its dependents—not only serving soldiers, their wives and families but many civilians attached to the Army at home and abroad.

Q Are there opportunities of serving abroad and if so where?

A Most Q.A.'s spend some time at an overseas station. There are Army Hospitals staffed by Q.A.'s for instance in Hong Kong, Singapore, Cyprus, North Africa and Germany, to mention just a few.

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Q Are there opportunities of increasing professional knowledge?

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1965		
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,, 9.	—H.O.P.	Plymouth
,, 16.	—Taunton	Taunton
,, 23.	—Devonport	Devonport Services
,, 30.	—Croydon	Old Whitgiftians
Feb. 6.	—Coventry	Coventry
,, 13.	—H.O.P.	Esher
,, 20.	—H.O.P.	London Irish
,, 27.	—Osterley	U.C.S. Old Boys (11 a.m.)
Mar. 6.	—H.O.P.	Old Alleynians
,, 13.	—H.O.P.	Nuneaton
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